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Note.—Cross references have been avoided as far as possible, and all articles indexed under both the subject and the name of the author. Illustrations are given under the name of the photographer only. The following abbreviations are used: Art., article; corres., correspondence; illus., illustration; illus. art., illustrated article.

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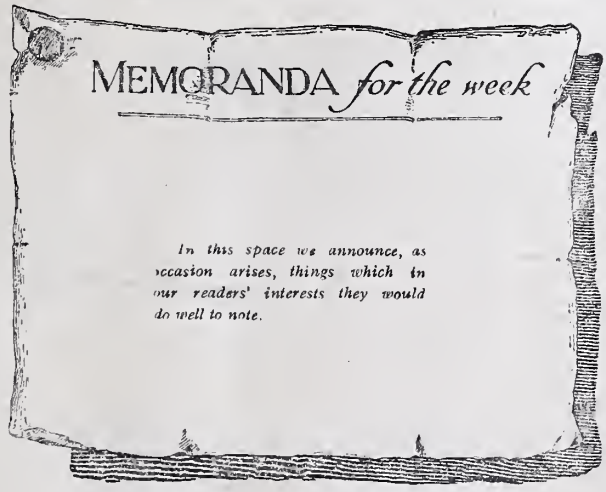
The Hand Camera for Serious Work.

No longer regarded as a Toy, the Hand Camera is taking the place of the Stand Camera for Many Purposes

THE idea that a hand camera is a toy, and that it is only the user of a stand camera that can be regarded as a serious worker, is almost extinct. Were it not for the remarks made by Sir Benjamin Stone the other day at a meeting of the National Record Association, we should have written that it was quite extinct; but that venerable knight clearly holds that view to this day. He has just this excuse or justification for doing so, that some hand cameras are undoubted toys, and that many, while capable of doing good work at times, are hardly suitable for the serious worker, because they will not always do it.

The reason why the stand camera used to be regarded as an instrument of quite a higher type than the hand camera when analysed comes to this—that the operations carried out with it were more directly under the control of the photographer than they were in the early hand cameras. But all that is changed to-day; and in the highest forms of hand camera, we have all the control over our apparatus that we have with the stand camera, together with the power of using it either in the hand or on a stand at will.

By "serious work" in this connection we mean work carried out with all the conditions as favourable as possible to success. Work in which the photographer may fairly expect to get a printable negative from every plate exposed, and a first rate negative from most. Work wherein the limitations imposed upon the worker by inadequate tools are reduced to a minimum. The hand cameras which comply with these conditions must have several adjustments, amongst which are (1) proper focussing arrangements, (2) accurate finders, and (3) a correctly graduated shutter.



Why Magnifiers are not Suitable.

The methods of focussing in hand cameras are twofold—either the lens or plate can be racked in and out, or the lens proper is fitted with a series of supplementary lenses or magnifiers, which when added to it make a combination of a focal length different from that of the lens by itself. These magnifiers are very serviceable for the simpler forms of hand camera photography, but for serious work a regular focussing adjustment is a necessity.

The reason for this it is not difficult to explain. We want our negatives to be as sharp all over as the best of modern lenses can make them; for they may have to be enlarged a great deal, and in enlarging a very little want of sharpness becomes apparent at once. We want to get this definition with as large an aperture as we can, for however rapid our lens, it will rarely be too fast for our purpose. Now, magnifiers do not give such critical definition as the best lenses properly focussed. Even if the magnifiers were fully corrected lenses, which they never are (the best are only "corrected for colour"), the loose way in which they are generally applied to the main lens would be sufficient to impair the definition with them. No doubt there are plenty of pictures, obtained with magnifiers, that may be said to be sharp; but the comparison is hardly a fair one, as the lenses to which magnifiers are applied are not usually faster than f/8, if as fast, and are often stopped down when the magnifier is used.

Where the Focussing Jacket Scores.

Not only must the hand camera for serious work be provided with a focussing arrangement, but that arrangement must work smoothly, and should be capable of the most accurate adjustment. There is no

doubt that the best form of focussing for a hand camera is to have the lens mounted in a well constructed focussing jacket. It may not always be the most convenient, or the most suitable for the particular design of camera selected, but for smoothness and accuracy a well-made focussing jacket beats every camera focussing by rack and pinion that we have come across.

The best of focussing arrangements is not of much use unless we have a reliable index of what we are doing, and there are two ways by which this is provided—by scale and by the full-sized finder of a reflex camera. The latter method is rapidly growing in favour, and for those who have never really mastered the use of the scale, is much to be preferred. But judging distance and focussing by scale is an art which can be acquired by practice, and acquired so as to be used with as much certainty as the reflex camera will give. Still it wants a good deal of practice, so the popularity of the reflex for press work and similar purposes is justified.

The Only Finder that is Always Right.

The reflex has one undoubted advantage over its rivals, and that is in the matter of a finder. It is the only satisfactory finder which is always right, which under all conditions will show precisely the picture that, if the button were pressed at that moment, would fall upon the plate. Other finders may be right at times, some are right at most times, but the reflex finder is always right. By this we are not criticising the workmanship of the finders, but assume that each pattern is as perfect as it can be made. It is not possible to construct a finder that shall always be correct, unless its lens occupies the exact position occupied by the camera lens; and it is only with a reflex camera that this condition holds good.

Quite as important as the focussing mechanism and the finder is the shutter of the camera; and here we feel we are on very delicate ground. It must be confessed that only too many shutters, however efficient in other directions, are altogether incorrect in their graduation. Some vary from day to-day, but others are consistent in error, and when they are correct the accuracy only too often has been purchased at the expense of efficiency.

So far only two perfectly satisfactory methods of regulating the speed of a shutter have been devised; one is the pneumatic regulation, now fitted to all the best shutters which work at the lens (except roller-blind shutters, which are in a different category), and the other is by controlling the width of the slit in a focal plane shutter.

The control of a shutter by spring tension is not reliable; and the accuracy secured in very rapid exposures with focal plane shutters is due to the fact that the spring is used normally at its full tension, and the exposure regulated by the slit. For exposures of a twenty-fifth of a second, say, or more, the focal plane shutter, apart from other drawbacks, ceases to be reliable as to speed, because this is no longer regulated by the opening in the blind. But for these slow speeds shutters at the lens are to be preferred, and with them the pneumatic control *may be* all that is required.

An Instrument of Precision.

It is hardly fair to that wonderful instrument of precision, the modern hand camera, to leave it at this, in a position of contested equality with the stand camera. It will do more. It can be used to record accurately and instantaneously, on the spur of the moment. Thanks to its comparatively small size, also, its lens will probably have far greater depth of focus than that on a large stand camera. Where the latter can be stopped down, this does not matter, but where the lens has to be used with a large aperture, the hand camera lens scores heavily. It is possible to get perfectly sharp pictures of moving objects on a quarter-plate, for example, by using a large stop and a rapid exposure, which with a whole plate camera and lens would be quite out of the question, because to get sufficient depth of focus the latter would have to be stopped down so much as to make instantaneous work impossible. The only movement that is very common in stand cameras, but comparatively uncommon in hand cameras, is the swing-back. Some hand cameras have this, it is true; but most rely on an ample rise of front to do what is required.

That there will always be a certain proportion of photographic work done with stand cameras is probable; but already the reflex is being used in the studio, and our engineering papers are illustrated by hand camera exposures on machinery and similar subjects. It is our belief that the features which are at present regarded as belonging exclusively to the hand camera will gradually make their way into what is at present looked upon as the province of the stand camera only.

R. C. B.



Character Photographs.

Several of the best of our illustrations this week are from photographs sent in to the "Fair of Fashions" Competition organised by the "Daily Mirror." In this competition a great deal of the work sent in reached a high standard, not merely of photographic technical excellence but also of intrinsic interest. The competition was limited to photographs which represented some character in history or fiction, some definite period in costume, or which were on the lines of some well-known painting; and the success which some of them attained was most remarkable. The copies of paintings appeared to be in the majority; but the best work on the whole was to be found amongst the character studies. The "Rosalind" and "Isabella" of Mr. Cavendish Morton, and the "Puritan" and "Head of a Girl, after Greuze," by Mr. Swaine, which we reproduce this week, will serve to show how successful some of the competitors were in this direction.

Faces in Profile.

The practical character of the article by Mr. J. E. Masters, which we print on page 4 this week, should commend it to the many readers we have who are

interested in portrait work; since he not only gives examples of profile pictures which he has taken, but shows in diagram form the arrangements by which the different lighting effects were obtained. While Mr. Masters refers to the temptation at times to secure a profile simply for its own beauty, and quite apart from any thought of getting a characteristic likeness, there is no doubt that this particular aspect, more perhaps than any other, seems to convey an idea of the personality of the model. We do not mean by this that any profile portrait must suggest the sitter, but that it is possible by proper attention to subject and pose, to lighting and to the arrangements generally, to get a more characteristic portrait of most sitters than in any other way whatever.

A Holiday Abroad.

Those who have not yet tried it, and would like to take their cameras to some land where there are plenty of opportunities for picture-making, should surely think of the little neighbouring kingdom of Belgium. Not only is it extraordinarily accessible, but it is one where travel is cheap, hotels are good, and for subjects there is a wealth which will hold its own with almost any part of the world. At intervals of only a few miles in this thickly populated land there are cities with architecture of the rarest and most beautiful character. Malines, Louvain, Bruges, Ypres, Antwerp, Brussels, and Ghent are full of work for the photographer. In its country villages, and along the banks of its canals are to be found figure subjects innumerable; while in the lovely district of the Ardennes, watered by the Meuse and its tributaries, there is unbounded scope for landscape work. For the architectural photographer Bruges or Ghent will be found to form the best headquarters, and for landscape, Dinant is conveniently central. Dover to Ostend is only a three hours' sea journey, and Harwich to Antwerp, if it take longer, can at least be done by night, while the traveller is comfortably asleep on one of the fine Great Eastern Railway Co.'s steamers.

Experimenting on a Holiday.

The holiday season makes a caution on this subject to the point. Many an amateur photographer thinks that he will get a new camera or try some new plates or new developer for his holiday work. He very naturally wants to get the best he can at what is perhaps his one photographic harvest in the whole year, and the idea therefore occurs to him to improve his outfit by a change in one respect or another. Let us assure him that if he does make the change, the chances are that he will regret it. After the holiday rather than before is the time to do so; that he may have every opportunity of making himself thoroughly familiar with the new apparatus and fresh material before coming to use them on subjects that he may never have the chance of photographing again. Every plate and every developer has its characteristic peculiarities; and the man who would get the best out of them that they will yield must be accustomed to them. This is equally the case with apparatus, and with nothing is it so marked as with a reflex camera. Anyone accustomed to the ordinary form of hand camera going straight from that to a reflex will find at first that the better instrument will not give him better results, but worse. It has got to be understood and its use mastered; and this should be done before taking it away, and not during the holiday itself.

When Sol begins to make his presence felt,
And gelatine emulsions start to melt,
When the chemist puts cough mixtures on the very topmost fixtures,
And in his window bottom, plates has dealt,

Then a certain photographic type awakes,
From his winter hibernation, and he makes
Attempts which never weary, and with each one there's a query,
As to how, and when, and why he makes mistakes.

"Why are my prints a beastly yellow hue?
Why do they stick to ferrotypes like glue?
Is't because I didn't grease them; would some dynamite release them?
I wish you would advise me what to do.

"Why do I get such pinholes on my negs.?
What can I do with shaky tripod legs?
My pyro's rather ruddy, and appears a trifle muddy
Can I use it if I filter out the dregs?

"I have a lens which doesn't seem much good,
The name engraved upon the mount is 'Wood,'
Would it be of use for copies; can you tell me what its 'stop' is?
It's two inches and a half across the hood.

"I want to 'take' some birds' eggs in a nest;
What exposure do you judge would be the best?
Do you think it would be plenty, if I slowly counted twenty,
With the camera pressed hard against my chest?"

Though the querist always wants some helping out,
There's one thing he's not particular about;
He gives meagre information, yet expects elucidation.
Of each obstacle, perplexity, and doubt.

A Warning.

Some of the latest models of folding hand or stand cameras are marvels of compactness; and when closed up contain hardly any space whatever that is not occupied by part of the apparatus. When these cameras are provided with a rising and cross front, it may be well to point out, it becomes very important to see that the front has been replaced, so that the lens is once more central, before attempting to close the camera. If this has not been done, it is quite likely that the camera will not shut up properly, and that the attempt to make it close will bend or break some part of the mechanism. Nothing like force should be used under any circumstances; but the camera carefully adjusted until it can be closed quite easily and freely. This is all the more important, because the hinged baseboard which folds up to enclose the lens and bellows acts like a long lever, and a very little pressure on its front end in shutting the camera will bring a great deal of pressure upon anything towards the other end which may be checking its movement.



FACES IN PROFILE.

With Six Illustrations

By J. E. MASTERS.

Special to "Photography and Focus."

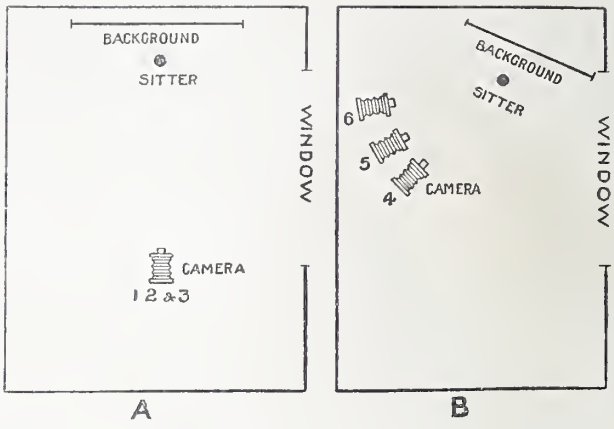


AS a portrait pure and simple, a full or threequarter view of a face, in the majority of cases, will give a more satisfactory and easily recognisable likeness than a profile. Not that one is really any more like than the other: but we are so much in the habit of seeing and looking at one another face to face that a view in profile occasionally loses more or less of its power as a likeness, simply because of the somewhat unaccustomed point of view adopted by the artist or photographer.

Many faces, however, when seen in profile, present such an exquisite beauty of line, almost irresistible in its charm, that, even when a portrait is the main consideration, one is often tempted to put the mere rendering of facial likeness into a secondary place, and to devote one's whole energies to the production of a thing of beauty, which will interest entirely apart from the fact of whether it is or is not an instantly recognisable portrait of any particular individual.

Some faces, not altogether perfect or lovely as a whole, are pleasing, and sometimes even beautiful, when seen in profile; and, photographed in this way, a much more flattering portrait is secured than could have been produced from any other point of view. As it is, or should be, the duty of the artist to discover and portray the most beautiful aspect of any face he may set himself out to depict, a profile view should, as a rule, be adopted in such a case as I have mentioned, even though it be occasionally at the loss of some more characteristic feature or expression.

The lighting of the face is always an important item in the production of a good photographic portrait; and in the case of a face in profile the different effects to be secured by simply altering the position of the sitter and camera with regard to the source of light are so varied that I trust these few notes and accompanying illustrations will prove of interest.



The most ordinary, and perhaps the most generally useful, method of lighting for the purpose of portraiture is when the light reaches the sitter at an angle of about 45°. This avoids the flatness resulting from a front lighting, and gives a nice suggestion of modelling to the features, without a heavy shadow side to the face. With a full or threequarter face this method of lighting will always give about the same result, but with a profile it will be found that the effect varies with the position of the head, so that with identically the same scheme of lighting we get two or three different effects simply by turning the face of our sitter either a little toward or away from the direction of the light.

This is illustrated in figs. 1 and 2, and the position of the camera with regard to the source of light is shown in the diagram A.

Now, with our model still sitting in the same position, but turning the head a little more away from the light, and slightly shifting the position of the camera in order to get the face in shadow, we secure a charming and altogether different effect of lighting such as is illustrated in fig. 3. The position of the camera is (with the exception of moving it an inch or so to the left) practically the same as for figs. 1 and 2.

This last effect is certainly more uncommon, and therefore, perhaps, more pleasing, than either of the two previous examples. We should always remember that in this, as in other classes of work, if it is possible to



Fig. 1.



ISABELLA. BY CAVENDISH MORTON.

The original of this picture and of that on page 19 were awarded the First Prize of £1000 at the "Year of Fashion" Tournament by the "Daily Mirror."



FIG. 4.



FIG. 3.



FIG. 2.

make any move in the direction of originality it is at least one great factor towards attaining artistic success.

The next three examples of lighting I illustrate are of what is often called (or miscalled) the Rembrandt style, and require treatment somewhat different from our previous efforts.

This style of lighting is, I think, most effective in the case of a profile study, the light being concentrated on the profile itself, and the rest of the face left more or less in deep shadow. To get the effect, our source of light should be comparatively small, and the camera must be placed almost facing the light. In such a case we have most of the face in deep shadow, and we must therefore be careful to remember and allow for this when exposing, if we wish to secure detail and gradation in the shadow portions.

"A Country Girl" (fig. 4) is a fairly good example of this style, and in the diagram B will be found a method of getting such an effect. The position of the camera is marked 4.

If, without moving our sitter, we shift the camera round a little more towards the light (as marked 5 in diagram B), we get a slightly more pronounced effect of the same style of lighting, such as is illustrated by "The Anarchist," which forms the initial on the previous page.

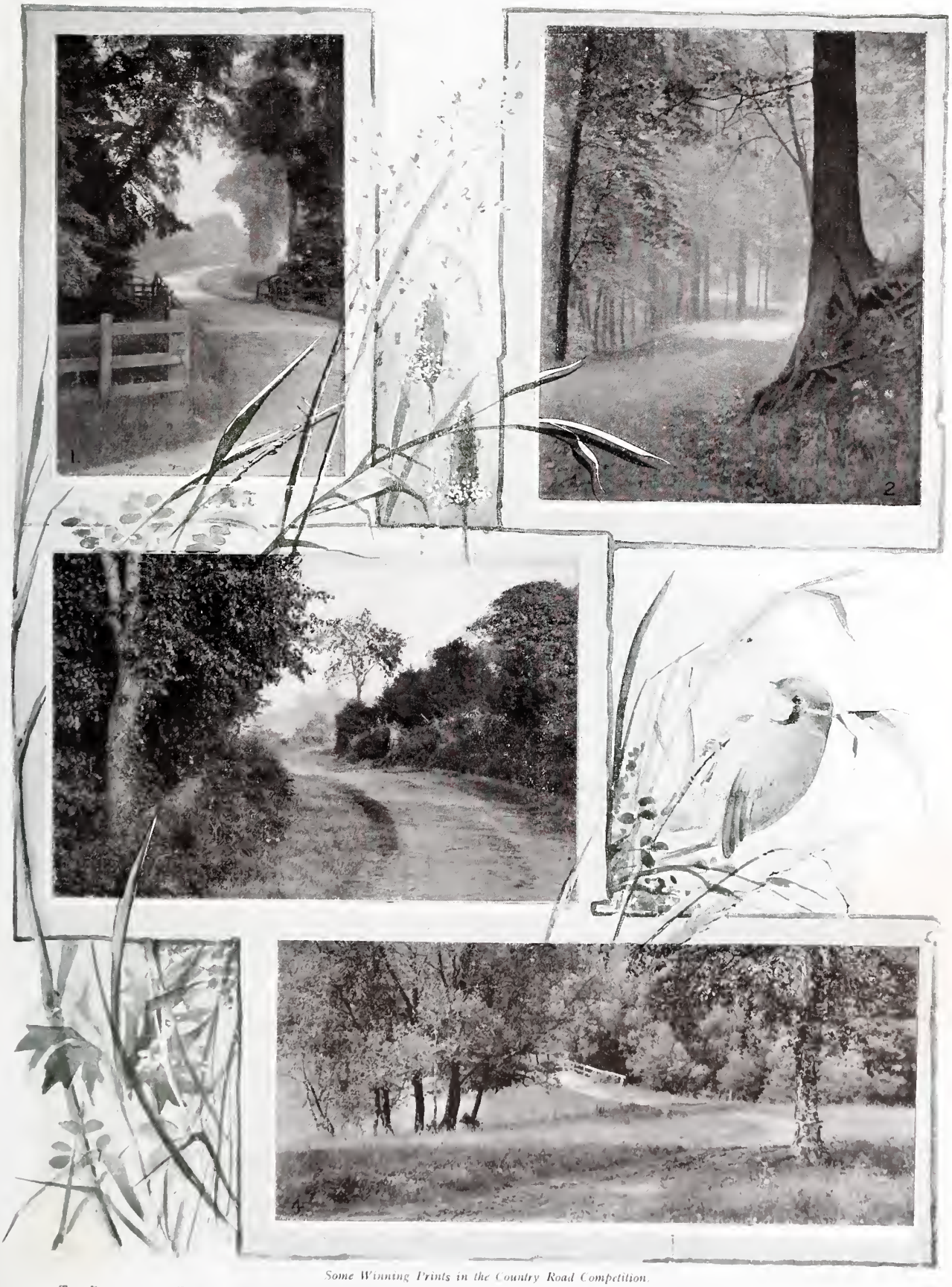
Sometimes it will happen that we get a profile so beautiful in its exquisite play of line that we wish to render it simply for its charm of outline alone, leaving everything else in obscurity. Fig. 6 (reproduced on page 9) will show what I mean.

The effect in this case was secured by moving the camera still further round, till it was practically facing the source of light, just getting a sharp and crisp illumination of the mere outline of the face. In order to keep this suggestion of line in its purity, the plate in this case was slightly underexposed, letting the remainder of the face merge into the black background.

As a general rule, a black, or almost black, background will be found most effective for this style of lighting, and for figs. 4, 5, and 6 such a background has been used. For such work as the other examples, figs. 1, 2, and 3, either a plain light grey background or one with a graduated "cloud" effect is the best. By using a painted background of this description one is able to employ the ancient, but most useful and effective, dodge of getting the light side of face against a dark portion of the background, and *vice versâ*. An investment of a few shillings in such a background is money well spent.

Of course, the arrangements which are here shown are those which were actually employed in getting the particular photographs reproduced with this article. The precise conditions as far as other workers are concerned may be a little different, and the arrangements must be altered to suit them, should this be so; but the diagrams given on a preceding page will serve to show the general lines on which the work may be done. I mention this here, lest any reader should feel tempted to follow them too slavishly, and then wonder why he has not got precisely the same result as I did.

In conclusion, I will draw attention to the fact that in order to give a look of animation to the head it is well to have it turned in a different direction from that of the body. Getting the sitter to tilt the head slightly towards the shoulder nearest the camera is also a great aid in securing a pleasing pose. As a general rule, the camera should be about level with the eyes of the person to be photographed.

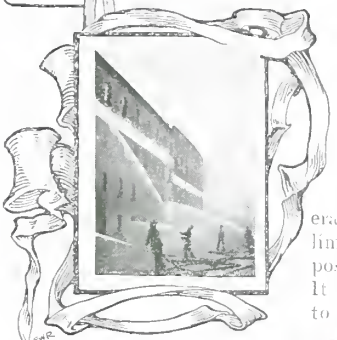


Some Winning Prints in the Country Road Competition.

1. THE ROAD TO THE FARM (CERTIFICATE). BY H. C. BUCKLE.
2. THROUGH THE WOOD (BRONZE MEDAL). BY W. E. CORK.
3. A COUNTRY LANE (CERTIFICATE). BY EDMUND HALL.
4. A COUNTRY ROAD (BRONZE PLAQUE). BY G. E. WITHEAD (MOSCOW).

The Amateur and his Rights.

By E. E. Mantell *Special to "Photography and Focus."*



A SUBJECT which I have not seen treated in any photographic paper, and one on which there are a good many misconceptions, is that of the right of the amateur photographer to point his camera at what he will, and the limitations which the law imposes upon him in that respect. It is a question which is sure to crop up almost as soon as we start photography, as the number of amateurs who find all the subjects they want within the limits of their own domain must be a very small one. As soon as the camera is taken out into the public street, and we look about beyond our own home and garden for subjects, we may be confronted with doubts as to how far we are at liberty to "take" anything we can see.

In City Streets.

In cities the hand camera is freely permitted without any written permission being required for its use; and, generally speaking, this applies to the stand camera also. The difference is that, although there may be no specific byelaw prohibiting the use of the latter, there are general regulations as to interference with the traffic, with which the amateur who sets up a stand camera in a busy street might soon come into collision.

In the course of business the writer has had on several occasions to use a stand camera in the streets of London, under circumstances when, had it been objected to, the objection, it is fair to admit, would have been a reasonable one; but he has not been interfered with in any way by the police on duty. In fact, they have assisted him in his work as far as possible. Still, it must not be assumed that anyone has a *right* to put up a stand camera in the way of traffic, just because there is no byelaw in so many words forbidding it. The camera seems to be regarded in this light in most countries except Russia, but there a permit must be obtained from the police before photography of any kind may be carried on in the streets.

No Copyright in Natural Scenery and Buildings.

A subject on which many seem to labour under a misapprehension is that of the copyright in a building or view. A man may own the freehold of some landscape or bit of architecture of which photographs command a ready sale, but he is at no advantage over anyone else as far as that sale is concerned. He cannot prohibit anyone from photographing his property and selling the prints, provided the photo-



THE FAIRIES. BY SWAINE.

From the Photographic Competition of the "Daily Mirror" Fair of Fashions Exhibition.

grapher can get the views he wants without trespassing on the forbidden land. There is no copyright in such things. If the view can be got from a public road or public footpath, or if permission can be got from the owner of some adjacent property for the photographer to go upon it to get his pictures, the owner of the place photographed can do nothing. Even if the photographer trespassed on his land to get the pictures, while he might prosecute him for the trespass, he could not stop the sale of the prints. At least, it is very doubtful if he could; the actual legal point involved has not been settled.

There are clergymen who believe that they have the right to stop the sale of photographs of their churches. They may be able to control the photography in them, but when once the negatives have been obtained they can do nothing. They have no copyright in the building.

No Copyright in Faces.

A portrait may be copyrighted, but a face cannot; and no one, in the United Kingdom at least, can prevent the sale of photographs of himself by those who have managed to get a negative. The picture may only be a surreptitious snap shot, but unless it could be upheld to be a libel, however much its subject might object, the prints could be sold.

There is no actual law against the snap-shotting of anyone in the public streets, but if it were done openly and offensively it is quite likely that the magistrates would look upon it as "conduct likely to provoke a breach of the peace," and treat it accordingly. If there is some public person whom the amateur longs to immortalise, it is best therefore to take his courage in both hands and ask for permission to do so. In most cases, so far from it being refused, it will be taken as a compliment.

It is said that in the United States the case is different, and that a lady succeeded in getting an injunction restraining some firm from putting her portrait on the labels of their goods. But so far the case in this country has not arisen. Let us hope that common courtesy alone will be sufficient to prevent it from arising.

Trespassing.

The law against trespassing is far more lenient than it used to be, or it is administered with greater leniency. The utmost that can now happen to the trespasser is to be made to pay for any actual damage which he has done. Of course, in most cases, the country magistrates are landowners themselves, and likely to look upon the trespasser in none too friendly a light; but prosecutions for trespassing, at any rate as far as photographers are concerned, are almost unknown. The most that happens is, as a rule, that the photographer is asked to get off the property on which he is trespassing, and a civil and ready assent to the suggestion will often obtain for him permission to get the photograph which he wants before he goes.

As soon as the photographer is off the public thoroughfare and on private ground his unrestrained right to photograph what he can see is gone. Because he has been allowed to enter, even if he has paid for permission, it does not follow that he can take photographs, unless this was specifically made part of the agreement on entering. He may pay for admission to a horse show, or a cricket match, or a fête, but it is quite within the rights of those who have taken his money to tell him that he must either leave off photographing or go outside again. When a permit has been obtained, it should be regarded as a concession and not a right, and it is the duty of the holder not merely towards anyone who has granted that permit, but towards his fellow photographers, to see that it is not abused. Some of the most annoying restrictions under which photographers now labour have been imposed because of the thoughtless, or worse, conduct of other photographers who have gone before them.



Faces in Profile. Fig. 6. (*See page 4.*)

The Fading of the Autochrome Colour Screen.

A NUMBER of autochromes which were shown to us the other day were all quite wrong in their colour rendering, having a bluish-violet tinge all over them. When the cause of this defect was sought it was found in the colour screen with which they had been taken. Last year this screen gave perfectly satisfactory results, but having been left lying about casually since then, it was now found to be visibly several shades less deep in colour than a similar screen of the same age that had been protected from light when the two were put side by side for comparison.

The moral of this, of course, is to keep the screen in its box whenever it is not actually in use. But one may go further and say that not merely the autochrome but no other colour screen should be exposed to light more than is necessary, as few, if any, are made without the employment of more or less fugitive dyes.—ED.



HERE are a further batch of hints and suggestions from readers. We take this opportunity of acknowledging the receipt of a great many useful tips in photographic practice, and invite those who know of any to send them to us for the benefit of their fellow workers. There is no need for diffidence on the ground that the sender is not used to putting his ideas into writing; so long as we get the material to go upon, we are always glad to put it into shape for publication.

Cleaning Conical Measures.

Doubtless many photographers have experienced the exasperating difficulty of cleaning the bottoms of those glass measures of the conical shape. Dirt settles down at the bottom, and, by reason of its being very difficult to reach, is often allowed to collect, and in time this sticks to the glass and becomes very difficult to remove at all. Often nothing short of hydrochloric acid will get rid of it. This trouble may easily be avoided by inserting a pair of glove stretchers over the points of which has been placed a finger-stall cut from an old white kid—or, better, chamois leather—glove. If this is done regularly it will prevent all possibility of impure solutions with a minimum of trouble.—OUZEE-PUM.

Tank Development of Stiff Flat Films

I would advise those who have had trouble with the tank development of flat films to try the following method: In a six-plate tank not more than five films should be developed simultaneously, and they should be arranged thus: In the first groove, one film, emulsion side towards centre of tank; in the third groove, two films; and in the fifth groove, two; the second, fourth, and sixth grooves remaining empty. This will ensure a thorough circulation of the developer. Instead of placing the films in the tank in a dry condition—a fertile cause of defects in development—a dish of water should be at hand, and each film soaked in it for a few seconds, and then the uncoated side of the film should be placed in contact with a piece of glass of the same size (an old thin glass negative is handiest), and both film and glass put into the same groove of the tank. Where two films are in the same groove, one film may be placed each side of the glass. The film, being wet, will adhere by suetion to the glass, and there will be no fear of any of the films bending outwards and touching the surfaces of those in other grooves. This procedure does away with all film holders, and, I find, is as simple as it is efficacious. When a twelve-plate tank is used, eleven films can be developed in the same manner.—A.W.H.S. (South Essex C.C.)

Written or Traced Lantern Slides.

The method described in "Practical Paragraphs" of June 8th is successful enough, but why go to the trouble of preparing plates in this way when they can be had ready made? I had a number of such slides to prepare for some lectures during the winter, and at first I used a very fine grain focussing screen made for photomicrographic work. This, however, needed subsequent varnishing to become transparent, and as I was always in a hurry even this slight operation bothered me. I found that a lantern plate fixed off in hypo without exposing gave just what was wanted—a practically clear glass which one could write on (with a quill pen, as stated by the previous writer) with ease, and which needed no subsequent treatment. By keeping a few slides so fixed in hand, I could prepare a dozen or so diagrams ready for use in half an hour.—N. H.

Opening Out a Lens.

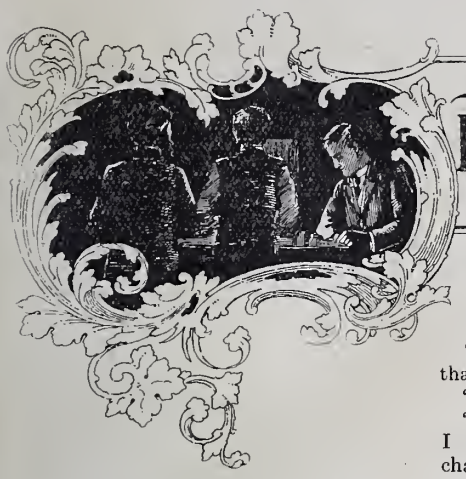
I can fully endorse Mr. Butts's note in "Odds and Ends" last week in the matter of opening out a lens. Wanting a rapid portrait lens some time ago for flashlight work, I hunted up an old single half-plate lens working at f/11. I knocked out the stop and made a new one of cardboard, approximately f/6. I have found it quite satisfactory for portrait work, and enclose a rough print of a head taken with it, the definition of which I think you will admit is quite sharp. The lens originally cost 7s. or 8s. [The definition left nothing to be desired.—ED.]—THOS. M. PARKER.

Multiple Mounting.

With regard to multiple mounting, it not infrequently happens with some of us that when the picture is finished we feel that the chosen tints are not all that could be desired, or that the best has not been made of the material in our hands. I have adopted the following course, which I find most useful. I have two frames made with loose backs. After the papers have been cut and arranged, I fix up the frame and hang it on the wall for a few days. If not satisfactory, the tints can be altered until the best effect is obtained. No adhesive mixture is required, as the papers keep in position quite well.—S. C. CUTTACK.

A Printing Process with Copper.

In the search for a daylight process of printing which would give me a true sepia, I was led to try the old method of sensitising with a chromate of copper solution, and as the results were very promising I give them here for the benefit of other workers who like to use home-sensitised papers. The paper is coated, in a very weak daylight, or better still by artificial light, with a solution of eighty grains of ammonium bichromate, eighty grains of potassium bichromate, and eighty grains of copper sulphate in three ounces of water. It is dried in the dark, and used as fresh as possible. The paper is printed out until the details in the high lights are clearly visible, and is then washed in running water until all trace of colouration in the high lights, when the paper is held up to the light, is removed. This, which will take about half an hour, should only be done in a weak light, as the paper is still somewhat sensitive. The print is then placed in a solution of pyrogallic acid five grains to the ounce of water, until the image reaches its full strength, after which it is washed and dried. Up to the present I have succeeded best by sensitising matt surface bromide paper. Spoiled bromide prints, with the image removed entirely with acidified permanganate, and then washed and dried, make an excellent gelatine-coated paper for experiments of this kind, and if one's failures are saved up until enough are in hand for treatment the paper becomes practically costless, as the permanganate bath is very cheap indeed. I use one of twenty grains of permanganate to the pint, adding thirty minims of sulphuric acid when this is dissolved.—S. P. ANDERSON.



DARK ROOM DIALOGUES

LAWSON got into the train and put a heavy brown paper parcel into the rack with a sigh of relief. Turning round, he saw that his two friends were in the carriage.

"Books?" enquired the sunburnt man, glancing at the rack.

"No; plates," was the reply. "I am off for my holidays on Saturday, and don't mean to run short if I can help it. And, what is more, I mean to try them before I go. No stale plates, or fogged ones, for me."

"I should not have thought it would pay a dealer to palm off stale plates, at least on any customer he hoped to see again," said the sunburnt man. "How much do you think he would lose if you went to some other dealer in future, and how much more if you took your failures up to the club, and told 'em where you bought the plates?"

"All the same, I am going to try them; and if you fellows like to come in and smoke a pipe when I have finished, I shall be very glad."

They promised, and conversation drifted on to other topics. In the evening the sunburnt man called for Oliver, and they went round to their friend's house together. Lawson was in the garden, and started to tell his woes as soon as ever they got inside the gate.

"I thought you told me that it didn't pay dealers nowadays to pass off stale plates" was his first remark.

"It doesn't, I should think," said the sunburnt man.

"You don't mean to say that yours are wrong, do you?" enquired Oliver. "I should have thought that that brand was like Potiphar's wife, above suspicion."

"Not Potiphar; try Cæsar," said the sunburnt man.

"Whoever the lady was," said Lawson, "she was not up to much if she was no better than those plates. Come along upstairs, and I will soon convince you." He led the way, and when they were all in the darkroom, passed them what looked like a spoiled negative. There was nothing on it beyond a few streaks and stains.

"You can't want any better proof than that?"

"Proof of what?"

"Proof that the plates are no good. I thought I would give them every chance, so as they are orthochromatic I did not use any light in the darkroom at all. I opened the packet and took a plate out in perfect darkness, poured on my usual developer for the usual time, keeping the dish shut up in a box. Then I rinsed and fixed it in the dark, and that is the result. Look, it is as foggy and dirty as you could imagine."

"I suppose you lit the lamp again, while it was developing in the box?" said Oliver.

"Yes," replied his friend. "But what of that?"

"Only that I should think it more probable that your box let light leak into it than that those plates should be bad."

The only reply Lawson made was to pass over to his friend a substantial wooden box with a well fitting and certainly opaque lid. Some wet patches on the bottom of the box served to show that it was the one that had been used.

"Nothing much the matter with that," was Oliver's comment.

"Nothing much the matter with the plates," growled the sunburnt man, filling his pipe.

"What do you mean?" asked Lawson. "Do you call *that* nothing?" and he brought forward the incriminating plate again.

"I mean that I should not be a bit surprised to find that the plates are in first-rate working order, and that if you treat your trial plate exactly as you propose to treat the others you will find that it is so."

"But I did treat it exactly in the same way," said Lawson. "I left it in the developer that I always use for the time it usually takes to develop—ten minutes. So that there can be no mistake."

"You don't see where the difference comes in?" enquired his friend. "Your test plate has been left in fresh developer for ten minutes. Your exposed plates are only put into fresh developer for an instant. As they *are* exposed, they at once begin to use up the developer, and not only to use it up, but to give up bromide to it, which acts as a restrainer. You know very well that if you took the developer after you had developed one exposed plate in it and tried it on another, it would be much slower, and the same applies here. The plate has had a much more severe doing than it would have had if it had been exposed."

"I never thought of it in that light,' said Lawson.

"I don't suppose anybody would," replied his friend. "I have no doubt that it was only after the experiment had been tried often enough that a reason for the difference was sought for and found to be what I have just told you."

"So my test is no guide?"

"None at all; but as you have opened a box, why not try another?"

"It is too dark to get an exposure out of doors," said Lawson.

"Never mind," said the sunburnt man. "You can expose a plate under a negative."

"Good idea," said Lawson, and suiting the action to the word he brought out a printing frame, selected a negative, and got all ready for turning down the light.

"Half a minute," said the sunburnt man, when he had watched these proceedings. "You have not got anything that is quite opaque in your negative, and you ought to have a bit of the test plate clear glass, as it is a test. Put a bit of black paper over part of the negative."

Lawson followed his instructions, and, on the suggestion of Oliver, who used the brand of plates which were being tested, he exposed it for a couple of seconds at fifteen inches from the gas. The plate was put into some fresh developer, shut up in the box, and treated in other respects as the first one had been It proved, when taken out of the hypo and examined in the light of day, to be quite free from any of the stains and marks which had disfigured the first one.

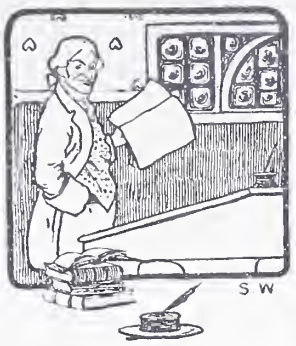
"Well, I hope you are satisfied now," said Oliver. "That plate looks all right, doesn't it?"

"Yes," said Lawson; "but I should never have thought that the mere exposure would make all that difference."

[We were going to report the sunburnt man's observation, but as it led to quite a discussion, we will save it until next week.]

CORRESPONDENCE

The Editor is not responsible for the opinions of his Correspondents.



SOFT OR HARD WATER.

Sir,—With reference to the note on "Letting the Developer Stand," which appears on page 529 of last issue of *Photography and Focus* under the heading of "Traps and Pitfalls," I should like to point out that for some time I was troubled very much indeed with these scum marks, which defaced nearly every negative I developed, and seemed to be quite beyond repair afterwards. The scum formed a kind of silvery deposit on the surface of the plate, which I found could be rubbed off with cotton-wool and methylated spirit very easily, but it always seemed to leave a mark beneath, which no degree of rubbing would remove, and was plainly visible in every print.

The developer I used was pyro-soda, and was made up with soft water, which I have been accustomed to use for all photographic purposes, as our domestic supply of water is very hard, containing a great deal of lime. On using the hard water for the developer, however, the trouble vanished, and has not since made its appearance. It would seem from this that, although soft water is the purer of the two, it is not so suitable for mixing up a developer, at least a pyro-soda one, as hard water.

Perhaps some other of your readers have had trouble from a similar cause, and may be glad of this hint as to how it may be prevented. Yours etc.,

J. TOWNSEND.

[A number of letters are unavoidably held over.]

The Week's Meetings.

MONDAY, JULY 5TH.

Photographic Convention. Canterbury.
Walthamstow P.S. "Photography in Vale of Arun" S. Bridgen.
Glasgow S.P.A. Fairley Glen.
Southampton C.C. "Copying Still Life Objects." A. E. Henley.
South London P.S. "Trimming and Multiple Mounting." J. A. Lovegrove.

TUESDAY, JULY 6TH.

Kinning Park C.C. Club Meeting.
Bradford P.S. Shibden Dale.
Manchester A.P.S. "Slum and Street Photography." T. Helliwell
Hackney P.S. "Exposure in Landscape Work." J. Linley.
Bishop Stortford P.S. "Carbon Printing." B. E. Wickison.

WEDNESDAY, JULY 7TH.

Canterbury C.C. Annual Exhibition.
Everton C.C. Members' Evening.

THURSDAY, JULY 8TH.

Tethury C.C. Weymouth.

SATURDAY, JULY 10TH

Huddersfield N. & P.S. Drop Clough, Marsden.
Kinning Park C.C. Uplawmoor.
Liverpool A.P.A. Monsal Dale.
Walthamstow P.S. Benfleet
Shettlestone & D.C.C. Rosenheath.
G.E.R Mech. Inst. St. Albans
Nelson P.S. Embsay Moor to Rylstone.
Wallasey A.P.S. Wallasey.
Rugby P.S. Lichfield.
Southampton C.C. Fawley.
Northamptonshire N.H.S. & F.C. Lichfield.
Paisley P.S. Hunter's Quay.
Erdington P.S. Dodder Hill.
Worthington C.C. Augmering.
South London P.S. Rickmansworth.

MONDAY, JULY 12TH.

Batley & D.P.S. Batley New Park.
Ashton-under-Lyne P.S. L. & C.P.U. Portfolio.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

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GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
Twelve Months	6	6	Twelve Months	10	10
Six Months	3	3	Six Months ..	5	5
Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

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SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY ANN FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

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TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY ANN FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.



AN EXHIBITION OF KINEMATOGRAPHY, optics, talking machines, and photography is to be opened shortly at the Crystal Palace.

THE SCOTTISH FEDERATION outing to Strathyre was a very successful one, and was fortunate in securing perfect weather conditions.

THE LIVERPOOL AMATEUR Photographic Association has on exhibition at its rooms at Eberle Street a selection of photographs by members of the "Linked Ring."

THE EDINBURGH COLLEGE Photographic Society has just held its exhibition. Awards were taken by H. W. Thorpe-Wood, G. H. Gulliver, F. B. Eykyn, W. Hume Kerr, and R. C. Lowther.

"THE GOERZ LENS AND ITS USE" is the title of a well-illustrated booklet which has just been issued by the C. P. Goerz Optical Works, Ltd., of 1-6, Holborn Circus, London, E.C. It should prove a very useful guide in the selection of the most suitable Goerz lens for any particular work.

FALLOWFIELD'S PHOTOGRAPHIC ANNUAL for 1909-1910 has now made its appearance, and is, we note, the forty-seventh of these wonderful annual price lists. It is a substantial volume of some 930 pages, and forms a complete cyclopædia of photographic apparatus and material of every description. It is priced at 1s. 6d. post free, foreign stamps from abroad being accepted in payment.

A GARDEN PARTY AND SPORTS were held on the 19th ult. in the grounds of the Wellcome Club, Dartford. Mr. R. C. Sudlow retiring from the general managership of Messrs. Burroughs, Wellcome, and Co., each member of the staff has been presented with a replica of the gold medal which on this occasion was presented to him. During the evening there was an open air concert and dancing on the lawn.

TROPICAL APPARATUS AND PICTURES. The Stereoscopic Co., at 106 and 108, Regent Street, has a small exhibition of photographic apparatus specially constructed for tropical countries, and of photographs taken abroad. It includes the latest model of the Goerz camera for photographing wild animals at night by flashlight, the animal itself releasing the trigger which fires the flashlight and makes the exposure.

PERMANGANATE AS A HYPO ELIMINATOR. Mr. J. Eyre Poppleton, on this subject, writes: "I would advise your readers that the permanganate is also an active reducer, at any rate of prints. I used it for prints on Seltona, and found that even in a very weak solution it soon reduced the prints a good deal, and also made them of a colder tone. Prolonged submersion of the prints produced a yellow tone, as per the print enclosed."

THE L. and P. at its annual meeting on the 24th ult. re-elected most of its officers.

IN THE HEREFORDSHIRE PHOTOGRAPHIC Society's competition for the Blake Challenge Cup, Mr. F. Pritchard was again successful.

THE NATIONAL PHYSICAL LABORATORY at Teddington will be closed from July 26th to August 7th, only a small staff remaining to deal with matters of extreme urgency.

MESSRS. R. W. SPITTLE AND CO. advise us that owing to increased business they are moving to more convenient premises at 106, Harbord Street, Fulham, London, S.W.

MESSRS. SHEW'S well-known and old established business in Newman Street, London, W., has been purchased by Mr. W. J. Ramsey, for many years the manager of the Photographic Dept. of the Army and Navy Stores.

A VERY SUCCESSFUL EXHIBITION has been organised by the Batley Photographic Society, in the rooms of the Free Library, which the committee placed at the disposal of the society on the suggestion of Mr. W. Bagshaw.

THE NORTH LONDON Photographic Society has removed to more central premises at 7, Highbury Place, London, N. The honorary secretary is now Mr. H. E. Jackson, of 11, The Broadway, Highbury Park, London, N.

THE SCOTTISH SALON. The "invited" exhibitors this year are Mr. Charles Job and the Brothers Hofmeister. The president of the Federation is included in the Birthday Honours, and will now be known as Sir Carlaw Martin, LL.D.

DEATH OF MR. GEORGE WILSON MORGAN. We regret to have to report the death of this well-known photographer, of Aberdeen. Mr. Morgan was travelling by night express, and fell out on to the line, sustaining compound fracture of the skull. It is supposed that he mistook the outer door of the carriage for the one leading into the corridor.

TO SECRETARIES OF PHOTOGRAPHIC SOCIETIES. The following trade lectures or demonstrations are being arranged for the forthcoming winter and early applications, stating vacant dates, should be made. Kodak, Ltd., 57-61, Clerkenwell Road, London, E.C.: "Large Prints from Small Negatives" and "Printing, Developing, and Toning of Velox Paper," both by Mr. W. F. Slater. The Thornton-Pickard Co., Altrincham: A lecture by Mr. R. Hesketh.

CLEANING BOTTLES. Mr. F. D. Shevington writes: "A good way to clean a bottle, and at the same time an inexpensive way, is to put some warm water and some sand into the bottle, and shake it well."

[There is no doubt that this gets the dirt off, but it is open to the objection that by injuring the internal surface of the bottle it makes it hold dirt in future much more tenaciously, and lays it open to the attack of chemicals which the original hard surface would repel. ED.]

THE LETO WORKS staff had its annual outing to Windsor on the 26th ult. A most enjoyable time was spent by all.

THE DERBY DAY, Ascot, etc., are now to be seen as stereoscopic positives at Messrs. Jules Richards's establishment at 23a, Albemarle Street, Piccadilly, London, W.

THE EALING P.O.P. Mr. T. R. Harris, of 2, Clovelly Road, Ealing, London, W., has sent us a sample of the paper bearing this name which he is putting on the market. We found it very satisfactory, toning readily to a good colour.

PRESENTATION TO MR. S. L. COULTHURST. Mr. Coulthurst has been presented with a grandfather's clock as a token of appreciation and regard from the executive of the Northern Exhibition, for his arduous services as hon. exhibition secretary.

DAYLIGHT LOADING DEVICES. Mr. W. F. Butcher, of Messrs. W. Butcher and Sons, Ltd., writes to point out, with reference to our leader last week on this topic, that every one of Messrs. Butcher's "roll film cameras, and also a good many of the others which are on the market at the present time, are made for use with plates as well as with roll films, and that the cameras are as well suited for one as for the other. Also, the cameras can be used with the film pack, which is interchangeable with the dark slides, and comes to the same register."

TOUCHING AND RETOUCHING. Speaking at the Hackney Photographic Society, Mr. Stuart Woodhouse said that the need for retouching negatives should as far as possible be avoided. Suitable lighting, full exposure, and the use of orthochromatic plates with colour screens would do much to render retouching unnecessary; but one did at times get negatives which were not perfect, and in such cases retouching could do much to improve them. He thought that a pyro-developed negative was better for retouching than one produced by any of the developers which gave a black or blue-black image, as the pencil marks blended better with the brownish-black deposit. No more retouching should be applied than necessary, and portraits of children should not be retouched at all. Mr. Woodhouse said the use of megilp to improve the surface of bromide prints was the outcome of many experiments with different substances. It had been suggested that megilp contained material that would be deleterious to the silver image, but so far he had found no ill-effects from using it. To brighten up the shadows of a print, megilp is applied to the surface with the finger, and rubbed in as evenly as possible, any uneven marking being subsequently removed by wiping with a piece of clean linen. Any amount of working up may be done by applying pigment mixed with megilp, and it can be so spread and blended by means of the finger tip that in the finished result it will be difficult or impossible to see where pigment has been applied. The megilp treated surface will take black lead pencil without the marks showing afterwards.



REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

FACTOR (Winchester).—30. No.

E.F.R. (Parliament Street).—About f/4.5.

H. THORLEY (Manchester).—Your query was answered, we imagine, though we are not quite clear on the point, on page 524 last week.

A. J. ROGERS (Mansfield).—The Voigtländer 4.5 would seem to be a little more suitable than the other, but there is very little difference.

CAMERACUS (Hereford).—"Photographic Apparatus," price 1s. nett, or post free from our publishers 1s. 2d., is the only one on the subject.

REFLECTIVE (Walmer).—We cannot draw distinctions "with reasons" between the two, but know of nothing against the choice you have made.

ANPHI (Herne Hill).—The print is bleached as described on page 533 last week, and is then darkened in Schlippe's salt 10 grains, water 1 ounce.

ANXIOUS (Hale).—Some are to be obtained in most, but it is far wiser to take an ample supply of those to which you are accustomed.

V. K. ARMITAGE (Birkdale).—They certainly are more rapid, and in some work done recently we used a speed number of 4 and found the exposures about correct.

LENS (Altrincham).—Aldis No. 2. We see no reason why what you have got should not be suitable for "ordinary all-round work." Surely you know whether you are getting good results with it or not.

S. H. (Holloway).—We have not the faintest idea what the marks stand for, and the only plan is to test the shutter on the lines laid down in this issue. The maker is unknown to us, probably the name is a fancy one given by the dealer who sold it.

BUDE (Ryde).—It is very doubtful if you would succeed in printing upon blotting paper, as it would be impossible to handle it in the wet state, and if you sized it properly to receive the sensitising coating it would cease to be blotting paper.

MING (Hendon).—Your query could not be answered within this column, but will be found replied to in Chapter VIII. of "The Hand Camera," by Wastell and Bayley, price 1s. nett, or post free 1s. 2d. It tells you there how to work it out for yourself. It is quite easy.

CALNE HILL (Bromley).—If due to the cause named it is more than doubtful whether the stains can be removed at all. The most likely latter would be one of alum 1 ounce, citric acid ½ ounce, water 20 ounces. It should be left to act for half an hour or so, and then the plate should be well washed.

FUR (Darlington).—You might certainly learn a good deal with what you have available, but it is a serious responsibility to advise anyone to take up the work professionally. There are always "openings," but many to fill them, and the only way is to make a point of being the best of the many.

TYRO (Carlisle).—You may perhaps be able to do something by fastening a reading glass over the lens and close to the front of the camera, using the smallest stop, if the lens has stops, and putting the print about a camera's length in front. But it is not the sort of task to attempt unless you are prepared for disappointment.

G. E. TENNANT (Leeds).—The "Reflex" would certainly seem to suit you, as no new lenses would get over your objection to the tripod. Your best plan would be to go to one of the Leeds dealers, tell him what you want to do, and take his advice as to what would best meet your wishes and your purse. Your enquiry is quite silent on the latter point and very vague and general on the other.

KODAKER (York).—Practically every modern lens is supplied, to order, fitted with the shutter you name, but you would probably have to buy both lens and shutter ready fitted. The articles on lenses now appearing in our columns may help you. There are so many it would be invidious to select anyone, but if you make your choice and write us again we will tell you whether it is suitable or not. But you must be as specific as possible in saying what it is wanted for.

W. J. MARTIN (Walthamstow).—They are a little faster, we believe; but you will be about right if you use 15.

NATIONAL (Great Yarmouth).—For general work the Planastigmat of Staley and Co. will be found to do what you require. The single combinations work well.

KUBDI (Karanja, Berar).—The substance you name is a trade preparation, and no formula for it has been published. You will do well to stick to the formula given with the paper you use.

W.S. (Chester-le-Street).—You will not be far wrong if you work strictly by the meter. If the stone is very black double the exposure. The exposure for a portrait out of doors would be about right.

R. F. GEORGE (Dum Dum, India).—Our publishers are sending you the indexes. Thanks for the cutting, but "The Walrus" dealt with this in our issue of May 25th, which must have crossed your letter.

F.R.D. (Acton).—Please be specific. What do you mean by "How does this compare"? We have read your enquiry several times, but fail to divine what it is you want to know. Kindly repeat it, stating clearly what you require.

WATCHMAKER (Nottingham).—From ten to fifteen minutes is the time usually taken, but in very hot weather the action is more rapid unless the water is very cold. Many thanks for the print, which is an excellent one and very interesting.

J.J.H. (Ealing).—The process by which it is prepared is a patented one, and details can be found by searching the files at the Patent Office Library. No doubt, however, there are details of manufacture which are not to be found in the patent specification, and in any case we cannot help you to infringe it.

CLARE BRUNE (Westbourne Park).—We are not quite clear as to the meaning of your enquiry, but the whole of the rules are published once, at least, every month. They were given on page 515 a fortnight ago. Any subject may be sent in to the Beginners' or Advanced Workers' Competitions, if not barred by anything in the rules.

W. BURRELL (Reading).—The only plan is to intensify them, for which purpose the mercury-ammonia method would be suitable. We should think that they would give good results even in their present condition, if enlarged in a daylight enlarger on to "gaslight" paper, as this gives a good deal of contrast even from a very thin negative.

GRAIN (Broadstairs).—There is no way of destroying it, and the best plan is to print on a rough paper so that it is not so apparent. The paper may be treated with turpentine 1 ounce, Canada balsam ½ ounce, brushing this on from the back; this makes the grain less apparent, but some paper does not take it evenly and then the negative is spoilt unless the balsam can be washed out with turpentine followed by petrol.

T. SMITH (Portsmouth).—A good developer is that given by M. Chapman Jones, as follows:

Eikonogen	1 ounce
Sodium sulphite (crystals)	2 ounces
Sodium carbonate (crystals)	2 ounces
Potassium bromide	10 grains
Water	20 ounces

The water is boiled, and while hot the sulphite, carbonate, bromide, and lastly, the eikonogen, are added. The solution keeps in good working order for months. One part of this to three or four times its bulk of water may be taken for use.

"POT. MET." (Horsham).—If you get sodium metabisulphite in place of potassium metabisulphite you will be safe in using the same quantity of the one as of the other. Your letter states you ordered "sodium metabisulphide" in place of "potassium metabisulphide." Both these compounds are unknown to us, and are not used in photography. If you are usually as careless as this we should advise you to take up some other hobby where mistakes do not matter, as you are certain only to meet with disappointment with the camera. A "d" substituted for a "t" makes all the difference between success and absolute failure.

OBLIGED (Bury).—No. 3 is the one we prefer.

J.J.B. (Custom House).—It is certainly the mountant or your method of using it and not the alum which is to blame.

C.H.S. (Whitley Bay).—Rub it up to a thick cream with gold size, and dilute it freely with turpentine for use. Too much of the gold size prevents it from drying a good matt.

G.E.H. (Scarborough).—The only plan is to measure the speed on the lines laid down in the article we publish this week. There is no standard in instruments of this type, and they differ among themselves very considerably.

DOLLY BLUE (Cove).—The prints do not show that there is necessarily anything wrong with the paper, but look as if they are either overprinted or insufficiently washed. Some papers require three or four hours' washing at least to get them bright and clean.

PRINTS (Nottingham).—Overprinted p.o.p. can be reduced with ammonium persulphate (5 grains to the ounce of water). It is best applied after washing and before toning, and the prints must then be well washed before toning; but it can be used on the finished, fixed and washed print.

LUMBERMAN (Arnprior, Canada).—We could not possibly arrange them all in order of merit, but you will not do wrong if you select one to suit yourself from among D.F. and H. We do not think that there is much to choose between the two systems; but our own personal preference is for A.

CLERICUS (Dorchester).—You have no remedy whatever; and can have no copyright in a view from a public road, even if it is your freehold. The device you suggest would be no protection, in fact nothing that we can see, unless it would be a hoarding and a dog, would be of much service.

MANXMAN (Newbury).—The exposure was no doubt much too long; but in no case that we have seen was the rainbow so distinct as it is to the naked eye. Still with one-fourth the exposure or less you should have got something. Unfortunately we had no opportunity of witnessing the miracle.

DEVELOP (Accrington).—The statement is often made, as you say, but is based on a misapprehension. There is nothing to be gained by employing them. As far as the Watkins developer is concerned its advantage is that, used as directed, the correct time of development for any plate can be known beforehand.

R. H. ALDER (Sunderland).—If they are both the same colour the answer is yes. If one is stained yellow and the other not, then the ratio may vary; but, generally speaking, with modern developers with a sufficiency of sulphite, they hold good whatever the process. Your question was perfectly clear; and we are much obliged to you for your good wishes.

M.B. (Groombridge).—The stains are not uncommon when a print containing developer comes in contact with hypo dissolving the silver salt. They are where they are, not because these particular parts were yellow in the original, but because they were white in the print, *i.e.*, the developer there had no work to do and so was still vigorous when the print was fixed.

H. FLETCHER (Woking).—If you really can do work like the picture to which you refer you should send it in to the R.P.S., where it would be very likely to secure acceptance, and you should certainly enter our competitions. Mere "clearness" does not count in the judging. Why not send in some prints to the Beginners' Competition. Send your very best work and see how you get on.

CAVALRYMAN (Curragh Camp).—We have returned the illustration. Your letter was not too long, but was explicit, and is therefore easily answered. The bottom row of figures is the F value of the different stops. The top row may be ignored the figures are simply *relative* exposures. For example, if you set the diaphragm to f/10, above which is 2, they tell you that the exposure with that stop, compared with the exposure for f/30, above which is 16, is as 2 is to 16, that is to say, is one-eighth as long.

Seaside Hand Camera Work.

BY REV. W. THOMS. Special to "Photography and Focus."



HOW well I remember the first time I took my camera to the seaside. I bought a book which professed to deal with photography by the sea, and gathered from it, amongst other startling pieces of information, that the exposure at the seaside was far shorter than elsewhere, that as we went inland the exposure gradually increased, that a tripod without any joints to the legs at all was to be preferred, and that extra rapid plates were a mistake. I did not get that tripod (I never found out where it could be bought), but I took slow plates, I acted on the "expert" (!) advice given in the booklet about exposure, and I used the negatives I got on the trip, after wrapping them up neatly in brown paper, as a paper weight. I have had several successful camera trips to the seaside since, but I have not worked on the lines laid down by that guide book.

The impression that exposures at the seaside are necessarily shorter than inland is probably due to the "sea and sky" item in exposure tables, which is always given as the subject requiring the least exposure. But this is merely because such subjects are in the nature of extremely open views with no heavy shadows at all. If an inland view is of the same character in this respect, it will call equally for an extremely brief exposure. The moment we introduce into our seascapes near objects with decided shadows, the exposures required are the same as the same class of subject would require inland. The one advantage we have is that the shadows usually are not heavy.

There is nothing like a hand camera for seashore photography. In fact, the sea provides opportunities that never or very rarely occur inland for successful work with some of the cheaper and simpler forms of camera. Thanks to the open character of the backgrounds afforded by sea or cliffs, and to the way in which the sands and water act as reflectors, lightening the shadows, just referred to, it is possible to get fully exposed figure studies and groups with a fixed focus camera and one speed shutter. Hand cameras of this type, as is well known, can only be used for instantaneous work on well lit open subjects unless the conditions are very favourable, and at the seaside they are very favourable. The amateur, therefore, who has a simple form of hand camera has opportunities on the beach which he will do well to seize. If the camera has a controllable shutter and the lens is fitted with stops, it will be found that f/11 and a twentieth of a second will give properly exposed negatives during the full daylight, for most of the groups or figures that are to be secured on the beach.

I find the photography of waves disappointing. Some of the seashore effects when the tide is retreating and leaves a long expanse of wet sand, especially when this is reflecting a sunset sky, are very beautiful, and within the scope of the simplest camera. But unless we happen to see a really great storm with waves breaking over the rocks and dashing high into the air, the wave photograph is hardly worth taking. Beautiful as is the curve of the water as it rolls over against the shore, it is very insignificant and commonplace when recorded on a quarter-plate with a snap-shot camera, and such waves therefore are best left alone.

Ships and shipping scenes are often very tempting, and although they call for a good deal of skill in the selection and arrangement of the subject to make an effective picture, they are certainly very easy to photograph in other respects. Except when the vessel is lying up against the pier or quay and a part only of it is being shown, the camera is used at "infinity" without any fear of the picture being out of focus. If the sea is to be shown to within a few feet of the photographer, it may perhaps be necessary to stop down to f/11, but it is not very likely. When photographs of ships are taken from the deck of another vessel, or from a sea wall, quay, or pier, nothing is likely to come near enough to be out of focus with the full aperture of the lens if this is set at infinity; but it may be advantageous to stop down to f/16, if the shutter has only one speed, to avoid over-exposure.

Some of the best hand camera subjects are to be found amongst boats and fishermen. It is curious how picturesque a great deal of the paraphernalia of fishing is, and how it lends itself to photographic treatment. The hand camera worker who is alive to his opportunities can hardly tire of wandering about amongst nets, lobster pots, boats and sails, and the sunburnt, blue-clad figures of those who get their living with them. Boat building and repairing, launching and hauling up, net mending, splicing, and even the arduous task of leaning against a post, which takes up so much of the time of the longshoreman, will provide work for his camera, from which he may get finished pictures for his home or even for an exhibition.

There is another large class of seaside subjects, in the groups of children paddling and building sand castles. Two fine examples of this by Mr. Dolden figured in *Photography and Focus* recently. Such work requires a good deal of patience. Anyone who wanders about the beach taking snap-shots will find that he is an object of curiosity to an extent which deprives him of the opportunity of getting anything like unconscious attitudes or poses. He must take up a good position and occupy it long enough to be no longer of any interest to those who are to be his models. After a time they will pay no heed to what he does, and he will be able to get natural groupings and unconscious posings to any extent.

The seaside, in short, whether it happens to be a popular resort or an old-world fishing village, will be found to provide plenty of work for the hand camera. The subjects lie all at hand—in fact, literally at hand, for here more than anywhere it is to the foreground or forewater that we must look for the interest. An expanse of sea dotted over with boats is a pleasant object to the eye, but a most uninteresting one in a photograph. A single boat or vessel on a fairly large scale on the plate is an excellent subject, but if it is only a small object with a great deal of unbroken or rippled water round it, it is best left alone. The things to look for in the finder are those which are near to us, which occupy a reasonable proportion of the plate, and have some well-defined lights and shades.

Holiday Photography.

BY THOS. KINGHAM. *Special to "Photography and Focus"*



THE Editor has asked me for a "brief pithy article on holiday photography." For the moment it did not occur to me that holiday photography differed in any way from any other photography as far as the amateur was concerned, since presumably he is always holiday-making when he photographs. But no doubt the Editor meant "away from home photography," although he might object to give it such a name, and "away from home photography" I have taken, therefore, as my subject.

One of the very first things to be noted is that in "away from home" work it is important not to leave any essential behind. If the holiday takes the form of a tour, a list of the things taken, which can be checked over with them every time the things are packed, is a necessity. But the methodical photographer would do this without being told, and the unmethodical would not be likely to do it whether he was told or not. Dark slides are not easily improvised, on the spur of the moment, it must be admitted, and the camera would only be forgotten by a photographer as hopeless as the fisherman who took the bottled beer but left his rods. Short of these two essentials, however, almost every item of the kit can be extemporised. I have seen a peg cut from the hedge and used as a tripod screw, and a piece of string employed as the substitute for the tripod head. In this case it was tied round the legs about six inches from the top, and they were then spread out. Their top ends opened out to form a flat surface on which the camera was rested. But I should have preferred the tripod top.

As far as possible, when one goes away from home photographing, the outfit should be self-contained; that is to say, it should include everything that under reasonable circumstances is likely to be wanted. Some three years ago I had a very pleasant fortnight with a photographic friend, touring in Brittany. He took with him a most convenient and compact electric dark-room lamp, which could be worked from any electric light fitting. He thought, and so did I, that it would be just the thing for plate changing, and if I had known of it earlier my old folding candle lantern would have been left at home. As it was, we only used the electric one twice on the whole trip, as on every other occasion there was no electric light in the room at all. So the candle came in handy after all.

In advocating the kit being self-contained, I do not suggest that all sorts of odds and ends should be taken, in case they might "come in handy." It should include, in my opinion, beside the ordinary contents of the camera case, a folding candle-lamp, a supply of plates, a few dark-room pins, a gum bottle with sponge top, wrapping paper for the plate boxes, and some "Wheeler separators." These last are little card frames, which are supplied in boxes of fifty. They can be put between each pair of plates, and keep the films from touching and rubbing. The common plan is to pack the plates film to film with nothing in between them; but if they have to undergo several railway journeys they are very apt to get damaged with pinholes, etc., as it is impossible to be quite sure that nothing is between them.

The only other extra in the kit is the developing outfit. Some workers can go away for a month or six weeks and never develop a plate until they return; but I must confess that that is not my own case. It is not that I am particularly anxious about my exposures. I work strictly with a Wynne meter, and feel very little uncertainty on that score; still, it is nice to know that one is right. But I have always developed one or two plates from time to time, since the photographic results of a pleasant ten-day trip were lost through a little hole in a changing bag, which let light through and fogged almost every plate. Had I developed one or two the hole would have been found out in time, and could have been patched up.

Hypo I do not take; it is needlessly messy and troublesome to fix and wash negatives in a strange bedroom, when perhaps one gets in dog weary. I always make a couple of exposures in duplicate on the day when I propose to develop a test plate, and the two quarter-plates so exposed are put side by side in the dish and developed. They are then rinsed for a few seconds, and the light is turned on. One can see directly whether all is all right or not, and the plates may then be thrown away.



A COUNTRY ROAD. BY A. W. WALBURN.

Awarded a Certificate in the Special Subject Competition.

What Exposure Does it Give?

By Bert Hunter. Special to "Photography and Focus."

Describing how to test the speed of a shutter without any special apparatus, and without any elaborate calculations.

IT is one of the drawbacks of the average hand camera, that the photographer does not know what exposure his shutter gives. Although it is very hard to convince a beginner that a stand camera is a much simpler piece of apparatus than a hand camera, one with which it is far easier to get a good proportion of successes, this is nevertheless a well recognised truth. Much of the ease and success of stand camera work is due to the actual timing of the exposure by the photographer, who takes the cap off the lens for some easily measured and definite time. The hand camera user, on the other hand, presses the button and accepts what exposure his shutter chooses to give. Very often this is altogether wrong, and very often, indeed, it is quite different from the time marked on the shutter to which it was set.

A photographer may contend that when he purchases for a few shillings a shutter graduated to different speeds, he has a right to expect that the shutter shall work to those speeds. I am not prepared to contest such a proposition, but it must be admitted that very few shutters do so. It is therefore most important, if we want to get rid of guesswork, that we should know the speed at which our shutters work.



All sorts of elaborate devices have been described for measuring shutter speeds — falling bodies, pendulums, bicycle wheels have all been suggested. They all have the drawback that they call for the construction of some kind of apparatus, which is going to take a considerable time and perhaps require more skilful workmanship than many a photographer can put into it, to be used once and perhaps never wanted again.

The method of speed testing which is described below is one which is free from this drawback, and was suggested to me by a failure, due to my shutter not working at the speed that was marked on it, or anything like that speed.

The method of speed testing, as I have myself used it, requires no apparatus at all beyond the camera itself; but to put it into practice we have to secure the co-operation of a friend. It is based on photographing some object moving at right angles to the camera at a known rate, and noting how much it has travelled during the exposure. In my own case, having a railway at the bottom of my garden, I use as the moving object a train. A cyclist would do equally well, as, pedalling along a level road he could easily maintain a sufficiently uniform speed for the purpose.



HEAD OF A GIRL, AFTER GREUZE. BY SWAINE

From the "Daily Mirror" Exhibition.



NESSFIELD LANE.
BY EDWARD L. GAUNT.
Awarded the Silver Plaque in the Special Subject Competition.



EN PASSANT.
BY G. EDWARD HACKFORD.

To ascertain the speed of the shutter, then, the camera is set up so that the train or other moving object crosses the field of view at right angles. This is important, as if it is crossing diagonally the reading will not be correct. The distance between two points visible from the camera should be ascertained by measurement or pacing. They must be as far apart as possible, as this increases the accuracy of the test, and they must be such that the speed of the train as it passes from one to the other is as nearly as possible uniform. All we have to do then is to snap off the shutter some day in a good light as the train crosses the field of the camera. It is well to arrange the camera so that the buffers come about on the middle of the plate, and the distance of the train from the camera should be such that the image of the locomotive is too large to cover the plate. The exposure is made when the front buffer of the train is as nearly opposite the camera as we are able to determine. It is quite possible that at the first attempt the photographer will have let the front of the train pass off the plate before the exposure is made, but a second trial is generally successful. The plate is developed and presents us with a very blurry image of the front of a train. It will not do to enlarge and put on our walls; it may even be too blurry to be entitled "Motion" and secure acceptance at the "Salon"; but it will serve its purpose, and will tell us as nearly as we want to know the speed of the shutter.

To ascertain the speed of the shutter, if we know the speed of the train is very easy. We can take the front of the buffer as the indicator of movement, and by actual measurement on the negative we mark off on a piece of paper the *height* or diameter of the circular disc on the end of the buffer, and the distance through which the front edge of the buffer seems to have moved. The next time we are at the station we can measure what the actual diameter of the buffer is (buffers are of a standard size), and in this way we know the scale of our picture. The speed is then ascertained by simple arithmetic in the following way:

The distance which the buffer has moved is got by a sum in the rule of three. As the size of the buffer in the negative is to the extent it has moved in the negative, so is its actual size to the distance actually travelled.

Having got the extent to which it has moved on the negative measured, we multiply this by the actual measured height of one of the buffers themselves, and divide the product by the size of the image of the buffer on the negative. This gives us the distance the train moved during the exposure, and calculating from the time the train took to travel the measured distance, we can get, by another rule of three sum, the speed of the shutter.

The method is only approximate, owing chiefly to the difficulty of determining where the blur begins and ends, and its accuracy depends on the accuracy with which this is measured on the negative. If the negative is fairly thin, it may be put into an enlarging lantern and an enlargement of the buffer made, as sharply as possible, and this measured. The actual size of the enlargement does not matter at all, provided both the height of the buffer and the distance it appears to have moved are both measured on the same enlargement.



ROSALIND. BY CAVENDISH MORTON.

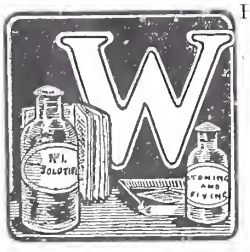
The original of this picture and of that on page 5 were awarded the First Prize of £50 at the "Fair of Fashions" Competition held by the "Daily Mirror."



EVENING BREEZES. BY R. MARSHALL.

An Intensifier for Under-exposed Negatives.

By Andrew Baker. Special to "Photography and Focus."



WHILE one often hears of intensification with mercury and sulphite, and I suppose almost every photographer some time or another has used mercury and ammonia, it is strange that a blackening agent which is to be found in every dark-room seems to pass almost unnoticed. In my own practice I never use any other intensifier for an under-exposed plate than mercuric chloride, followed by an ordinary developer. Nothing less. Under-exposure is inevitable at times with all of us; but if development is stopped before the highest lights are quite as dense as we should like them to be, ignoring altogether whether there is or is not detail in the shadows, and then this intensifier is applied as described below, we can look at the result with a feeling of confidence that we have done the most that can be done for the under-exposure.

The bleaching solution is just the ordinary saturated solution of mercuric chloride diluted with three times its bulk of water. I put an ounce of mercuric chloride into a half-pint bottle, and fill it up with water, and shake it occasionally. As long as any of the chloride remains undissolved at the bottom of the bottle it is safe to add more water to replace the solution taken out. An ounce of the mercury salt lasts a long while used like this. To intensify, I take four drams of this solution, dilute it to make two ounces, add four drops of hydrochloric acid, and the bath is ready for use. Under-exposed negatives are much improved by intensification, especially if this is not carried as far as it will go, merely letting the bleaching go on until the more transparent parts are seen to be bleached through. We must remember that it is these which we want to intensify as much as we can; the high lights are sure to have all the vigour they require. Accordingly, we do not wait for the mercury to act right through the more opaque parts, but take the plate out and wash it under the tap, or in several changes of water for ten minutes. It should then have a bath of weak hydrochloric acid, say one dram of acid to three ounces of water, and after remaining in this for five minutes may again be left under the tap for a few minutes while the blackening solution is being prepared.

This may be any ordinary negative developer which works without stain. In my own case, I use metol-hydrokinone, the same formula as I use for the development of my negatives. It is a well-known formula, but in case a reader should care to try it, I may add that it is made by adding in succession to a pint of water, fifty grains of metol, forty grains of hydrokinone, an ounce of sulphite, twenty grains of potassium bromide, and an ounce of sodium carbonate. One part of this solution to two parts of water is quite strong enough for intensification.

The bleached and washed plate is placed in this developer until it is seen to be blackened right through, and is then again washed under the tap for five minutes, and may be put up to dry.

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Architectural Work with the Hand Camera.

By A. N. Hall. *Special to "Photography and Focus."*



THE long exposures which are required for interior photography necessitate the use of a stand of some kind; but for exterior views of architecture there is no reason why a hand camera should not be used, and used successfully. Indeed, where the buildings to be photographed are situated in busy streets, with people passing to and fro and much traffic about, the hand camera is the more convenient instrument of the two. For this work, however, a rising front will be found an absolute essential, and the lens, of course, must have sufficient covering power to allow the rising front to be freely used. In no other way that is practical can we ensure getting the building properly on the plate.

There is another thing which is as essential for this work as the rising front, and that is a finder which will show what is the effect of raising the front on the particular view with which we happen to be dealing. This is not easily accomplished, although there is one finder on the market which itself is fitted with a rising front that may be graduated to correspond with the rise of the camera front. Most finders have what is rightly regarded as the defect of showing a great deal more than the lens includes on the plate. From our point of view for the moment this is an advantage.

By fixing the camera on a stand or support, and inserting a focussing screen, it is easy to arrange some view which will contain a few well-marked points for our guidance. Then with a little brunswick black and a fine brush the finder may have its upper surface painted over until it only shows what would be included on the plate with the lens in its ordinary position and with the lens raised as far as it will go. Two spots of black may also be put on the finder—one which marks the top of the picture when the lens is central, and one which marks the bottom when the lens is fully raised. For most purposes this will do all that is wanted, as, unless the rise of front provided is something altogether exceptional, the whole of it will be wanted for most architectural subjects. The reason for this is easily explained.

If the lens is central and the camera is level, objects which are three or four feet from the ground—objects, that is, which are level with the lens itself—will be depicted in the centre of the plate. This is all very well in the case of portraits or even many landscapes, but for architecture a height of three or four feet is only the very base of the structure, and so unless the front is raised a great deal the base will occupy the middle of the plate, and most of the building itself will not be on the plate at all.

If a rising front and a reliable finder are essentials, so also is a level. Unless we intend to put the distortion right afterwards, by swinging the negative and the paper when enlarging, we must be able to see at a glance when the camera is level. For this purpose the little circular levels so often fitted are not much use. If the reader has one of these, and cares to take the trouble, he will find it interesting to see how far he can tip the camera without it showing in the level. If the camera is of box form, with a flat top, or if there is room for it on the baseboard, an ordinary spirit level of a short pattern may be carried in the pocket to use on the camera in case of need. A level across the camera is not required. If it is not quite level this way, no great harm is done—none, in fact, that cannot easily be put right when the print is trimmed. Besides, one does not have much temptation to tip the camera sideways.

There is another point that it is useful to remember, and that is that the defects of converging lines, due to the camera being tipped up, and of curved lines, due to the use of a single lens, will both go almost unnoticed if the lines that are affected do not come very near the edges of the picture. In fact, the "curvilinear distortion," as it is called, is only met with towards the margins of the subject; and it is only when the lines which are distorted, from either cause, are near the margins of the print, which have to be both straight and parallel, that their inaccuracy is revealed by the way they contrast with them.

Much of the disappointment which many workers experience over their architectural snap-shots is caused by unsuitable lighting. Sunlight is almost a necessity, at least if a good bright effect is wanted. Buildings which face the north always look flat and weak in a photograph from this cause, unless, as sometimes is the case, they have strong contrasts in the materials of which they are composed, to give the picture life. While sunlight is necessary, it should not fall full upon the front, but well to one side or the other, that there may be shades as well as lights in the picture.

One other matter that may be worth mention is that of making it a rule always to get the view from as distant a point as possible. It is not likely to be too distant, while it may very easily be too near. A wide angle lens is useful, but it should be regarded as for emergencies only, and never used when as good an effect or better can be got by going farther away and using a lens of longer focus.

A Home-made Red Light for the Dark Room.

THERE does not seem to be any one dye which can be used with gelatine to form a safe light, but by combining a red and a yellow a very satisfactory screen for the lamp may be made. The plan usually recommended is to dye gelatine, but a large sheet of glass coated with gelatine is not easily procured at a cheap rate. It is much better and simpler to dye sheets of tissue paper. Judson's dyes may be used, and primrose and deep red selected for the purpose.

A very good safe light is made by sandwiching one of the primrose sheets between two of the red ones. After dyeing and drying, the paper should be dabbed over with a little solution of wax in petrol, and when this is dry it may be placed between blotting paper and ironed with a warm iron. This picks up the excess of wax, and makes a beautifully translucent paper, which not only makes the light safe, but diffuses it. The three selected sheets, after ironing singly, may be laid together and again ironed, when they will adhere slightly, and may be handled as one. They are, of course, mounted between plain sheets of glass for protection. When the dyeing is being done, it is well to do a number of sheets, as they may be put away afterwards in a portfolio, and kept until they are required, their cost being infinitesimal. In this way I have provided myself with a number of safe lights for various purposes with an outlay of less than sixpence all told. The glass, wax, and petrol I had. All that had to be purchased were the dyes and the tissue paper.—L.J.V.

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Caricatures by Photography.

By A. W. H. Weston. Special to "Photography and Focus."



IT is no new thing to produce caricatures by the aid of the camera. Many amateur portraitists do it unintentionally, while sometimes it is done deliberately by the aid of distorted films or double printing. There is something new, I hope, however, in caricatures produced along the lines I wish to suggest in this article.

It has always struck me that there are more possibilities in those little Dutch dolls than at first meet the eye; and here they find another field of utility. Give one a face of the particular person we wish to caricature, and all its antics become those of that person, giving scope for many a skit upon his whims and ways.

There are two distinct methods of placing a head on the shoulders of a Dutch doll, and I will outline them both. The first is the simplest, although it has certain disadvantages. It is represented by fig. 1 in the illustration on this page. The photograph of the head in this case may be practically of any size or style, so long as it will suit the general idea of the intended caricature. The doll is posed and photographed in the ordinary way, the picture being male of a size to suit the head. The doll should be illuminated, also, in the same direction as the head.



Fig 1.

A print is made from this negative, also to suit the head photograph, as far as process and depth are concerned; and then the two parts of the caricature, the photographs of the head and of the doll respectively, are cut out very carefully and mounted on a piece of plain white or grey card, the head of the doll being cut out and the other head fitted into its place.

A little shading must next be worked on the card with ordinary water colour, taking care to keep it in accordance with the lighting on the photographs. The print is then spotted and worked up a little, if it requires it, and finally the whole is copied to a suitable size, by photographing it in a good, even light. A little retouching may be done on the negative round the outline of the figure, etc., to get rid of any "stuck-on" appearance; and we then have the negative ready to make any number of prints after the style of fig. 1.

The second method, of which Nos. 2 and 3 are examples, is quite different—more difficult, perhaps, but one which opens up greater possibilities. In this, a photograph of the face is transferred to the head of the doll itself. It must be a full face portrait, and evenly lighted to start with.



Fig. 2.



Fig. 3.

If it is not of the exact size required, it must be enlarged or reduced on to a lantern plate or ordinary dry plate.

In an article on "Photographic Eggs," which appeared in *Photography and Focus* for April 6th this year, I gave detailed instructions for producing such transparencies, and transferring them to eggs. The process is the same when we transfer them to Dutch dolls, and therefore I need only give a brief outline of it.

First, however, the doll's face must be prepared to receive the photograph. For this purpose it may be given a good thick coating of Chinese white, finished over with white enamel. This gives an excellent ground, of brilliant whiteness.



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To transfer the photograph, the outline of the face on the film of the plate is cut round with a sharp knife, and the plate is then soaked in a mixture of three drams of hydrochloric acid with two ounces of water for half an hour. Then, after being loosened sufficiently, the film is helped away from the glass with a smooth wooden implement (a clay modelling tool serves excellently). When finally removed, it is brought to the edge of the glass, the doll's head is placed underneath, the plate is drawn away, and the film picture is left on the face. It is allowed to remain there a little while to set a little, and then is stretched out and allowed to dry.

It may happen that the photograph is too narrow to cover the round head of the doll, and if this is the case the white margin between the film and the black hair of the doll must be painted with a suitable mixture of Chinese white and Indian ink. Before commencing any operations on the doll's head, it is severed from the body, being fixed on again afterwards with a long pin run into the trunk. This allows the head to be turned as on a pivot. The nose of the doll should also be shaved off, to avoid tearing the film.

As far as the actual photographing of these doll pictures is concerned, it is best to use a continuous background, a white sheet, a blanket, or a roll of floor felt answering admirably. The light may most conveniently be produced by magnesium ribbon, for the control it places in our hands is often valuable. For photographing these little figures they are affixed to the table or board that is underneath the foreground by means of pins, preferably short glass-headed pins, passed through the feet at the back. Accessories may be made very quickly out of all sorts of odds and ends. Cardboard supplies a milestone, black paper a "lucky" cat or "topper," wall paper a dress, and so on.

When it is possible to obtain a portrait specially for the caricature, a suitable expression may be aimed at. For example, in fig. 3 the sideward glance helps the effect. Pose, however, is the most essential. Note how in fig. 2, although the expression is commonplace enough, the idea is embodied in the pose. "Hark!" and Whittington stops to listen. London is near at hand, with its streets all paved with gold (perhaps), and we can almost hear the very bells that invited Dick—Lord Mayor that is to be—to turn. The cat, too, is urging him to good luck. But I am sure the reader is longing to hurl a horseshoe at his, or my, head, to complete the happy augury.

The Unveracious View-finder.

By Dixon Hunt. Special to "Photography and Focus."

"THE Walrus" is not the only one who has had occasion to lament the deceptive wiles of the average view-finder. For many years I have used a hand camera fitted with a pair of brilliant finders so accurate that I have developed a faith in finders by no means justified by the character and behaviour of such as a class.

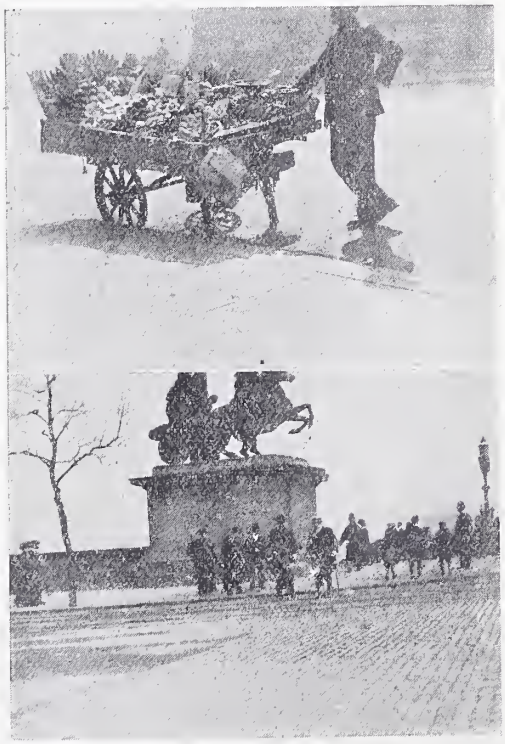
The finders in question showed a trifle less than appeared on the plate, so that they were of real use not only in directing the camera, but in indicating just what was being included. It is unfortunate that such valuable helps to hand camera work should be so rarely found. It cannot be because the fitting of an accurate finder is an expensive or difficult task, as I know of a series of hand cameras ranging in price from a guinea upwards that have finders almost as accurate as those of the twenty-guinea Dallmeyer camera to which I have referred.

The other day I was testing a new camera—one of the folding pocket variety. Of course it had a finder. This was a glittering little object, sparkling with glass and silver, and with a gay spirit level attached. It was the sort of thing one might hang on one's watch chain. No one but a born ass would have dreamt of relying on it as a guide in selecting and placing the subject.

Yet I relied on it—for a time.

I was just pottering around in the London streets, making casual shots at things and people, using different stops and shutter speeds and putting the camera through its pacings generally.

My suspicions were first aroused when I was about to fire off a plate at the Boadicea monument at the end of the Embankment. I instinctively prepared to raise the front of the camera considerably. Yet the finder showed the whole subject well within the bounds of the plate. I trusted the finder, and ignored the promptings of commonsense. The result is seen below. The other example is the sort of thing I had been



taking previously. Everybody was beheaded more or less completely if taken at anything like close quarters. Tall buildings had lost their tops, and it was no consolation that they possessed instead a vast wilderness of empty foreground.

But salvation was at hand, and my eyes were opened to the bare-faced deceptions of that gaudy little finder. From a certain spot on the edge of Trafalgar Square I consulted the finder's vision of the Nelson Column. With a lens of the same focus as the one I was using, and from the same spot, I knew the amount of rise required to ensure Nelson being included with his column.

That unblushing finder not only showed Nelson all complete, but room enough above him to have included the *Victory's* mainmast, and a large slice of firmament into the bargain. It was too much; far too much. In dignified silence I raised the front of the camera an inch and a half, and Nelson was saved. Had I again pinned my faith to that finder I should not even have had a half-Nelson, although I had as much as three-fourths of Boadicea and a large proportion of her chargers, and the banana merchant only missed immortalisation by a short head.

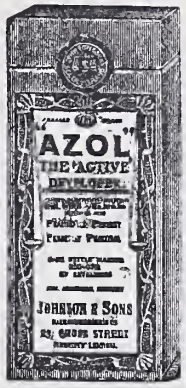
The moral is obvious. It would have been quite a simple matter to have tested the finder of that camera, and it could have been adjusted easily so as to have been approximately correct. That would have been the sensible plan to adopt.

But how many of us are wise, and cautious, and thoughtful in such matters? Not I, for one.

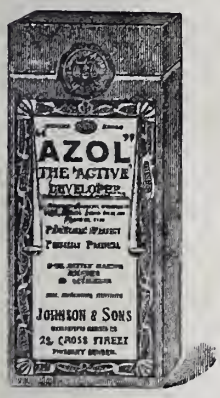
Very likely I shall march out with the next new camera I have, and buy some more experience. By the law of averages my next figure subjects should have no feet. There are view-finders quite capable of playing that prank. Meanwhile, preaching what I have not practised, I would say, Never trust an untested view-finder. And don't trust a tested one too far.

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"The time has come, the Walrus said, to talk of many things."

AS I write my diary presents me with the gruesome intimation that to-morrow is the longest day, and that the next but one is Midsummer Day. Which reminds me of the man who bought a sausage roll at a railway buffet. After chewing patiently along from one end he was fain to ask the waitress where the sausage was. She informed him that he had not yet reached it. He took another bite, and showed her that there was still no sign of it. She told him he was now past it. Similarly, for some weeks I have been making occasional rushes round with a camera, and almost without exception have been favoured with rain, hail, wind, cloud, and snow. I have been waiting for the summer, which has not yet arrived. If I take a camera out this next week end I shall certainly find that the summer is gone. So I take the opportunity of wishing readers A Merry Christmas.

* * *

As a matter of fact I have been ashamed to show my exposure meter the light. The sensitive paper has done its best, but I am sure it has felt uncomfortable to see me sitting for hours in the rain waiting for it to darken to the quarter tint. Sometimes I have mercifully put the focussing cloth over it to hide its blushes, and even this has not perceptibly decreased its rate of darkening. Summers are not what they used to be. In the good old days when I was blissfully free from the awful encumbrance of a camera and knew not the name of an exposure meter, I remember we used to have a long succession of sunny days for months on end. Well do I remember the long, long halcyon days when I "with patient angle trolled the finny deep," although it must be confessed that the water was none too deep and far less finny than I could have wished. The performance generally ended in my diving in to hook on the reluctant fish. But I was happy. I had no misgivings as to over-exposure. And when I stopped a scorcher at cricket I did not worry as to whether I had used the right stop. Nor did I measure the speed of my cycle wheel in terms of Hurter and Driffield.

* * *

For, look you, if I happen now upon a little hard-won leisure, do I swim, fish, cycle, play cricket, or tennis, or smoke the pipe of ease under the murmurous trees? I do not. My ruthless camera stares me in the face with the ruthless grin of an inexorable taskmaster. Wherever I go I am expected to take that ungodly machine with me. I must obtain, heaven help me, illustrated articles for rapacious editors, and grisly lantern lectures for insatiable societies. I am a photographic Sinbad and my camea is the tenacious Old Man of the Sea A plague upon it.

* * *

In the winter it is not so bad. One can make more or less plausible excuses for not carting about a ton of old apparatus. But in the alleged summer excuses are but as the idle wind. I hear that even in the height (or depth) of summer cameras are not so common as formerly. Where there were once 100 you now find only 99.9. So things are improving. I am still living in hopes that one day I may have the courage to grind all my photographic impedimenta into powder and be free to go out and enjoy myself once more.

* * *

It is quite pathetic to think of all those who still go forth for a summer holiday with a camera hung like a millstone about their neck, and weighed down with the obligation of exposing a minimum of a gross of plates per day. They spend perspiring hours changing plates under the bedclothes; they fill the otherwise-intended bath with atrocious negatives; they disfigure every windowsill with dilapidated printing frames with an ineradicable habit of falling off where they can do the most damage. The slender remnant of their time they spend in prowling disconsolately up and down from Dan to Beersheba seeking for gorgeous subjects they never find.

* * *

Knowing all this so well I shed pitying tears when a man lightly informs me that he is thinking of taking up photography this summer. Taking it up, mind you; as though it were a thing he could take up and put down when he chose. I advise him much as I should have done had he told me that he was thinking of taking to drink as a pastime and adopting gambling as a hobby. I point out that once he takes a camera in hand the few remaining joys of the modern summer will take to themselves wings. Henceforth he will look upon a breaking wave as a mere problem in shutter speed; the green trees will engender considerations of colour screens; he will estimate a sunset according to its probable value as a picture postcard. His, and other people's, cousins, sisters, and aunts will be converted into viperous enemies as a result of his essays at portraiture His innocent dallyings with self-toning P.O.P. will land him ultimately in the dismal dirty depths of oil and gum His home will degenerate into a pigstye littered with broken glass and tainted with sulphide fumes. His hands will disgrace an ape, and his clothes a scarecrow. He may even sink so low as to become a pothunter or a member of the Linked Ring.

* * *

Then I sell him a camera.

* * *

The free and independent photographer has little chance of escaping the incubus of his hobby, but for the member of a photographic society there is no hope at all. After enduring through the winter a deadly series of demonstrations, lectures, discussions, and other forms of torture, he finds that the summer is blighted by arrangements for outings. When these outings are a substitute for the indoor meetings things are bad enough, but I can't think why they refrain from suicide who find themselves landed for both indoor and outdoor meetings. I have long sought for a reason why photographers attend summer outings, and I think at last I have found it. The human mind is so depraved as to find comfort in tribulation when that tribulation is obviously shared by others. Each takes pleasure in showing the others batches of prints and watching them writhe. If one should seek to snatch a crumb of comfort from the fact that he has found a good subject the others unanimously deride his selection, and reduce him again to a state of gloomy despondency. These are the real attractions of the summer outing. No wonder that the advent of summer leads the photographer to envy the lot of a second-hand gollywog.

THE WALRUS.

SUBSCRIPTIONS.

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PHOTOGRAPHY AND FOCUS.

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Photography and the Bicycle.

Suggestions on the Selection of Apparatus and Material for Cycling Photographers, and how it may best be carried.

IT may seem heresy to say so, but the camera and cycle do not form an ideal combination. The cycle is very useful as a means of getting the photographer to the scene of his photography; but when it has done so, the very best thing that can be done with it is to leave it somewhere in safe custody until it is time to go home. True, one can get snap shots by the roadside; and many a cyclist carries a camera with him and uses it; but he is a cyclist first, and merely a snapshotter incidentally as it were. If he is seriously bent on photography he will find his cycle invaluable up to a certain point, and beyond that a nuisance. The goddess of landscape photography, at any rate, is one who must be worshipped on foot.

But if the cycle limits the camera user, it is at least a ready and enjoyable means of conveying him to places which would otherwise only be reached with difficulty, and it greatly enlarges the sphere of his operations. It is useful in another way, as there can be no doubt that the bicycle, by carrying its rider to the best of the country round, is often an indirect means of causing him to take up photography that he may record the pictures that he sees about him.

The Size of the Camera.

For the cyclist who takes photographs the most compact and portable apparatus he can get is what he will prefer, and some of the tiny folding cameras which are now so popular seem to lend themselves to this kind of work very well. On the other hand, the photographer who simply uses his cycle to carry him to the district in which he is going to make his pictures will not feel disposed to sacrifice any part of his photographic outfit to his machine. Hence it is not uncommon to see bicycles carrying half or even whole-plate outfits. Where practice is so varied it is unsafe to attempt to lay down any very definite rules, and all one can do to be of use is to suggest the arrangements which may be most convenient in each case.

From the point of view of photography pure and simple, the best way to carry the camera on a bicycle is slung over the shoulder, since this reduces the vibration to which the apparatus is subjected to a minimum. But if it is the best from the photographic point of view, it is by no means the best from that of the rider, as it is uncomfortable, inconvenient, and if hung too loosely and too low may at times be dangerous. A small camera can be slung over the shoulder when one is not going very far; but in any other circumstances it is better to adopt some other means of conveying it. As the effect of vibration is chiefly to be feared when glass plates are used, and especially when these are carried in wooden dark slides, it is often possible to divide the apparatus, putting the slides where they will be least likely to suffer from this cause. One of the triangular cases which are made to fit the frame provides a very good way of doing this when the camera is a large one, and the dark slides may then be put upon a carrier over the back wheel, or, better still, in front of the handle-bar. The tripod is most conveniently attached by a couple of straps either to the top bar of the frame or to the handle-bar, preferably to the former.

Roll Film Scores Heavily.

There is one occasion on which roll film seems to score more heavily over cut films or plates than it does on any other, and that is when touring on the bicycle.

MEMORANDA *for the week*

To send a postcard to Messrs. Burroughs, Wellcome, and Co., Holborn Viaduct, London, E.C., for a free copy of the "Time and Temperature Table," giving the correct time of development for all plates with various developers.

Not only are its lightness and its unbreakable character advantages which are then esteemed to the full; but it is free from the tendency to collect dust, which is the greatest bugbear of the cycling photographer. True, plates can be taken long distances on the cycle without showing any signs of dust, but it is quite impossible to guarantee that this shall be so. All one can do is to hope that it may. But with roll films the most reasonable care will be quite sufficient to ensure a freedom from those annoying pinholes in the negative which tell us that there was dust on the film at the moment of exposure. The reasonable care resolves itself into keeping the inside of the camera clean by dusting it out occasionally, and by doing the loading and unloading of the spools in a place that is not overwhelmingly dusty.

Wrap up the Camera.

Our own practice when cycling is to carry the camera closely wrapped up in a thin waterproof focussing cloth, which not only protects it from rain, but is a complete protection from road dust, the camera coming out quite clean and fresh, even after a long and dusty ride. The cloth is simply shaken before being used to wrap up the camera again.

The camera which we prefer is one of the folding type, postcard size, and it travels in a little leather case attached by means of a couple of straps to the handle-bar. The case was originally made apparently to take a half-plate camera of similar type, and will accommodate the postcard one, wrapped up in its focussing cloth quite easily. There is a little space to spare for a tripod screw, exposure meter, etc., but the cloth prevents the camera from shaking about. The straps are sewn on to the case so that the camera can be taken out without detaching the case from the handle-bar. Whenever the spool is changed, the inside of the camera is dusted out lightly with the handkerchief.

A Rule without an Exception.

A rule to which no exception is ever made is always to have the camera open, with its front extended whenever an exposure is wound off. If this rule is neglected it will be found that there may be mysterious marks and streaks on the film, due to it being drawn across the bellows on winding it off. The space in these cameras is economised so strictly that after one has been in use a little while the bellows generally close up so as to touch the film somewhere or other. It seems to do no harm, but provides another reason for keeping the inside of the camera clean.

The tripod is the most awkward part of the outfit to carry, and it is to the requirements of cycling photographers that we owe the many jointed tripods constructed to fold up so as to reduce the length to a minimum. Whether these are not more bother than they are worth is an open question, and our own preference is for the simple two jointed stand folding and sliding to one-third the total length of the leg. For a stand camera this is as rigid as one can want, and is not too long to be carried along the handle-bar if this position is selected for it.

A Tripod that is not a Nuisance.

For the camera alluded to above we carry a sliding tubular tripod which slips into a little case beside the camera case. It is quite a pocket affair, and is not often wanted, but there are times when it is very welcome. Interiors and many woodland subjects, for example, are quite impossible with hand exposures, and for these the little tripod acts just as well as a big one. It is a delicate piece of apparatus, however, really more delicate than the camera, and so is only used when it is a necessity.

There are clips on the market by which a camera can be attached to the bicycle itself, but it is very doubtful if one of these would be of use sufficiently often to justify carrying it about. It does not solve the question of support, because the cycle itself must then be supported, and it also involves taking the cycle to the actual place where the exposure is going to be made.

When touring on a bicycle it will be found very convenient to post the films home from time to time as the spools get finished, and, if necessary, to get fresh supplies of film in the same way. Even with plates this can be done, and, although the packing and carriage are more, it is even more advantageous, as the weight dealt with is greater. W. D.



Our Summer Number.

The Summer Issue of *Photography and Focus* is out of print. We have received all sorts of congratulations upon it—"the finest pennyworth ever offered to photographers" writes one enthusiastic reader, who shall stand as a sample of the others. For all these, we are duly grateful; and will only add that we hope to beat it with our next special. We are glad to hear on all hands that it has been appreciated; and with that will leave the past for the present.

Daylight Dark Room Lights.

The paragraph concerning the fading of the Autochrome colour screen, which we printed last week, may serve as a reminder that there are other colour screens besides those which are used for orthochromatic and colour photography which may fade, and by fading give rise to trouble. There are dark rooms which are lit by daylight filtered through screens of paper, fabric, or glass. Those on the inside of such screens are usually unaffected, as the outside one protects them, but that outside one will certainly need attention from time to time, since from its position it is constantly exposed to light. A sheet of ruby fabric which has been fastened for the past twelve months over a glass door, which itself was well inside a room and never exposed to a very strong light, is before us as we write. The contrast between the colour of the fabric where it has been exposed to light and that where it has been protected by the heads of the drawing pins which held it in position is striking. For all practical purposes

that fabric is now quite useless as a light filter; its dye has faded to a pale pink. Inside it was a layer of canary medium; but that is as good as ever it was. Those whose dark rooms are lit in this way would therefore do well to look to the safety of the window screens if they have been for any length of time out of use but exposed to daylight; while those who are arranging or designing such window screens will do well to take the hint thus given, and make them so that it is easy to remove the outer layer of coloured material, whatever it may be, when this wants renewing, without disturbing those which are underneath, to which it has acted as a protector. It is commonly supposed that ruby or yellow glass is not liable to fade in the way that fabric or paper does; but the difference is only one of degree, and some ruby glass fades considerably in a very short space of time. Our readers may remember some correspondence which appeared in *Photography and Focus* about this time last year, in which it was shown that a sample of ruby glass had faded in six months to a pink which allowed to pass light of all colours up to violet, and was quite unsafe The best plan for most workers undoubtedly is to exclude daylight from the dark room altogether, and to use a lamp of some kind, which would not be likely to give trouble from this cause, and has the added advantage of being of constant strength.

About Orthochromatic Plates.

Those who use orthochromatic plates and a colour screen will find that the correctness or otherwise of the colour rendering depends very largely not only on the screen, but on the exposure. Unless the plate is fully exposed through the screen, the latter will not be exercising its powers of correction as it should do. The plate may not appear to be appreciably under-exposed, but still may be sufficiently so for this to happen. We can, therefore, only be quite sure that the screen is exercising its selective action to the full and the plate is recording it properly, when there is no doubt whatever that the plate has had a full exposure.

The Autochrome Anniversary.

The corresponding issue of *Photography* to this two years ago was the one which first announced to an incredulous public the wonders of the Autochrome plate, which we now all take so much as a matter of course. It is hard to realise that only two years ago the claims which we then put forward on behalf of Messrs. Lumière's invention were being ridiculed by some of our contemporaries and ignored by others. We were asked to believe at once that the things we claimed to have done were impossible, and were also to be done very much better by the so-called "Warner Powrie" plate, which has still to make its appearance. One writer, who now deals from time to time with the Autochrome plate himself, made the brilliant discovery that all our experiments were mythical. The dozens of Autochromes we were showing all over the country—at Tudor Street, at the British Association, and elsewhere—were mere creatures of the fancy, and in describing the results we had obtained we were drawing upon our imagination. It was not a very honourable suggestion, but it was made by a not very honourable scribe, and was at least a testimony to his angry jealousy. But the ill-feelings aroused by what was rightly regarded as a very big "scoop" on the part of *Photography* have long since passed away, and familiarity with the Autochrome has become a common possession. It is significant of the perfection reached before the plate was put on the market that it is only this year that any competitors to it have made their appearance at all, the Omnicolore, which we were also the first to introduce, figuring in *Photography and Focus* for January 26th. The Thames plate, which we had hoped to deal with editorially this week, since it is now on the market in its combined form (screen and emulsion on the same glass), we find at the last moment we must hold over.

THE PORTRAIT.

Brownson, our pictorial member, made a portrait one fine day,
Of a valued chum, whose business took him off to far Cathay.

On a whole-plate was that portrait; and by some unlucky means,
Brownson let it drop, and smashed it to a million smithereens.

From the splintered wreckage, Brownson rescued portions of his chum,
Here an eye, and there a nostril, then a bit of cranium.

Brownson nearly wept with sorrow, but he bore it like a man,
Saying, "Since I want his portrait, I must do the best I can."

So he took the largest fragment, showing portions of a head,
Printed it in gum, and called it, "Portrait-sketch of X.Y.Z."

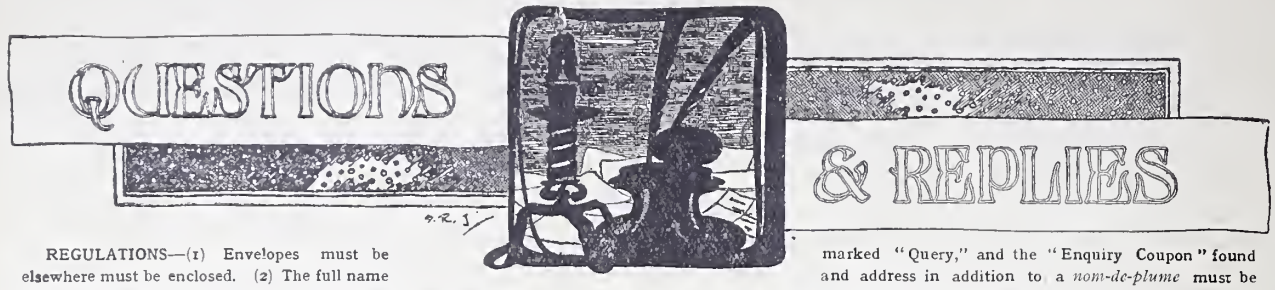
And the photographic critics, flocking round from far and near,
Quite unanimously dubbed it, "Finest portrait of the year!"

* * * * * * *

Brownson later on discovered ("Keep it dark! All right. You swear?")
That the piece which he had printed was a corner of a chair!

The Index to "Photography and Focus."

The volume of *Photography and Focus* ends every half year, and as soon as possible after its completion an index and title page is published for the benefit of those who wish to bind their copies. The index is now ready, and can be obtained free of charge on application to the publishers, Messrs. Iliffe and Sons Ltd., 20, Tudor Street, London, E.C. Every application must specify that it is the index of *Photography and Focus* that is required, and must be accompanied by a stamped addressed wrapper (not a loose stamp). As the index always goes out of print rapidly, it will be well for those who want it to make immediate application.



REGULATIONS—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

M.M. (Edinburgh).—The factor is 7.

A. G. STANBRA (Burslem).—Thanks. But you see that this was not what was asked for.

W.D. (Northampton).—The enquiry is not clear, the "Petzval Lens" *is* a portrait lens.

H. S. BOWNLER (Clapham).—We have an article this week upon the subject, as you see.

HALLOWEEN (Wensleydale).—Many thanks for the suggestion, which we hope to be able to adopt.

A. SLACK (Warrington).—We are sorry to say that we have not got the information that you require.

G.F.G. (Highgate).—Its price new is £4 16s. The back half can be used separately. The bubbles do not affect its selling value.

PETROL (Potter's Bar).—Yes, it will act as a solvent; and should be very suitable. Now that petrol is so generally used, a good many such formulæ will no doubt be recast.

E.F.R. (Parliament Street).—There is a very poor market for typical travel photograph at any time, and we cannot suggest any firm who would be likely to purchase them.

H. GOOCH (Edgbaston).—There is no rule in such matters. This is a thing in which each must be guided by his own good taste, and if that will not help him he must be content to fail.

STEREO (Holborn).—They must, of course, be reversed right for left, just the same as any others. If you think it out you will see that your device would in no way avoid the necessity for this.

ANTISEPTIC (Tottenham).—Salicylic acid is generally used; but it is much better to add nothing of the kind and make up the starch paste fresh as it is wanted, or else to use one of the commercial mountants.

REFLEX (Preston).—You do not say what aperture you wish the lens to work at, so we cannot advise you definitely. You will hardly go wrong if you go to one of the leading makers, whose advertisements you will find elsewhere in this issue.

BEGINNER (Oldham).—Your description of how they developed is very much as plates should develop if they are properly exposed, but if they take a very long time to print we presume they are badly stained. Perhaps they were a little overexposed. Why not send us one to look at?

STEREO (Huddersfield).—Certainly not. We have often pointed out that it requires special apparatus and expert knowledge to compare lenses, and mere trial in a camera as a rule gives very little idea of their relative merits, and unless the photographer knows something of optics may be quite misleading.

REV. CHAPPLE (Darlington).—Whether you are wise in parting with the camera you have we cannot possibly say, without knowing precisely why you want to get one of another pattern, especially as you say you do not want very high speed. This is essentially a matter of personal taste. The instruments you name are satisfactory enough.

J. E. POND (Leeds).—Why remove it at all? It does no harm whatever in the developer, and the marks to which you refer have nothing whatever to do with it. Any that is left on after fixing comes off with a touch, and it is much better, as you do not want to look at the negatives during development, not to wet the plates beforehand and so make air bells very likely to be troublesome. If you turn the tank upside down every two or three minutes during development you will have no further trouble from the marks.

A. E. LAROE (Streatham).—There is only one way to find out and that is by actual trial. It will depend on all sorts of things you do not give. The rapidity of the lens, the colour of the walls, the positions that are available, etc. If you cannot try beforehand then it would be well to ask the makers of the powder how much they advise and then double it. High up and well to one side is the best position as a rule; but it is a case for the use of commonsense brought to bear upon the local conditions and not one for definite directions beforehand.

ORTHONOX (Reading).—Certainly there is nothing against it, except the trouble of preparing it as required.

D. H. ELMSLIE (Bristol).—The source was no doubt the one you suggest; but we cannot see that any harm was done.

G.E.H. Newcastle-on-Tyne).—Any dealer will supply you with something of the same sort; we do not see anything patentable in it.

HARAISON HOLT (Vancouver, B.C.).—The "Bee" meter will do all that you require. Full instructions for the use of it are supplied with it.

DEFINITION (Crosshill).—You certainly must not try any such experiment as cementing the lenses with Canada Balsam, unless you want to spoil them.

W.R.K. (Cirencester).—It is a thoroughly reliable instrument, and may be depended on to do *its share* in producing good pictures. Do you see our drift?

W.W.B (Eltham).—Many thanks for the suggestion, which we hope to adopt later on when the evenings begin to draw in. It is hardly seasonable at the moment.

GRANGE (Tiverton).—A lens of 5in. or 6in. focus would be convenient for the purpose. The "diameter" is not important. Any ordinary quarter-plate R.R. would do.

W.D. (Partick).—If you register now you can stop future copying or sales of copies already made; but you cannot recover penalties for anything done before the date of registration.

W. BAINES (Birkenhead).—There is not, as far as we know, any method of making "blue-prints" absolutely permanent. If permanence is desired some other process had better be employed.

RUBY (Norbiton).—Two thicknesses ought to be sufficient for all ordinary purposes, but we should prefer one of ruby and one of yellow, with a sheet of tissue paper between them to soften and diffuse the light.

TCHERLLKNSKI (Nightingale Lane).—Mr. William Nash writes that Messrs. Sanders and Co., of 71, Shaftesbury Avenue, W.C., supply an electric release suitable for all kinds of shutters that act with a pneumatic release.

B. B. WOODHOUSE (Leeds).—It is made, presumably, for portraiture, and so can be used for it. It is also suitable for enlarging, and if stopped down may be used for landscape work also, if you care to be cumbered with so bulky an instrument.

T. T. BAYLEY (Edgehill).—We do not at any time recommend keeping a gold toning bath as a stock solution, but the sulphocyanide may be kept as a ten per cent. solution, and the gold in a strength of 15 grains to 15 drams of water, with advantage.

CLIFFORD R. SMITH (Melton Mowbray).—We see no reason to quarrel with the selection which you have made, and films should answer in the conditions named. It would be well to communicate with the Kodak Co. as to the best means of getting them out there intact. There seems to be no reason to doubt that films do not stand heat and damp as well as plates.

AIREDALE (Bristol).—If you took the portrait in the ordinary course of business and were paid for it, you cannot prevent your customer from allowing it to be reproduced at his pleasure. If you did not charge him for it, or charged him a specially low rate, presumably that you might supply it to papers, then the copyright is your own. But it would have to be registered before you can do anything.

C.E. (Southampton).—Potassium metabisulphite is generally employed as the preservative for pyro, because it is not only a good anti-stain, but is also acid; and pyro keeps much better in acid than in neutral solutions. If sulphite is used the solution will not keep colourless so long unless a little acid, such as citric, is added. An ounce of sodium sulphite and ten grains of citric acid in ten ounces of water make a good solution in which to dissolve an ounce of pyro. The result is as nearly as possible a ten per cent. pyro solution.

QUERCUS (Beeston).—The prints should be well washed before toning.

W. IRISH (Rochdale).—Many thanks for the suggestion, of which we hope to make use.

J.G.F. (Sheffield).—There is no best in the case; any of the leading makes will do all that you require.

MISS HALDANE (Tufnell Park).—A small advertisement in our columns should bring you what you want.

HAAD LINES (Bury).—This is a matter for the police, in whose hands you would do well to place it.

J. CURREY (Preston).—We have an article in type on the subject, which will probably appear within the next fortnight.

DUDLEY (Dudley).—The exposure would vary within wide limits. You might try a couple of minutes and see how you get on.

LINES (Greenwich).—Try reducing quickly with a strong ferricyanide and hypo reducer applied for just a moment or two; and, if need be, follow this up with intensification.

FLASHLIGHT (Warrington).—Only an experiment could tell you; so much depends upon the nature of the room in which it is done, that reliable data cannot be expected in books.

S.S.Y. (Grimsby).—There is every reason why you should succeed. It is only a case of sticking to it. Read the "Critical Causerie" carefully, as it is intended to help in such cases as your own, and persevere.

J. C. SMITH (Highgate).—Backed plates will certainly be required, and the exposure must be ascertained as accurately as possible. This is a case in which it would be wise to make a trial exposure and develop it before putting the rest in hand.

HOBBY (Reigate).—If only we could answer your questions what a circulation we should have, many hundreds of thousands, if not millions. Unfortunately there is no such royal road as you suppose. You had better get the Watkins Manual and read it carefully.

STUDIO (Wednesbury).—It would be well to put the glass in at the west end of the north side; it should extend from three feet above the ground up to the ridge, and from the middle to within a couple of feet of the west end. No other alteration seems to be required.

ALARIC (Stockport).—None of the lenses you name would give any different result from the Cooke. The definition might be poorer in parts, but it would not be the kind of softening you require in portraiture. We do not see that there is much to choose between them.

R.S. (Preston).—There is nothing the matter with the bromide print as far as we can see, except that the negative was not developed quite long enough to suit that process. It is just right for the gaslight paper which calls for a softer negative. The colour of the two prints is exactly the same, both are black or shades of black according to the depth of the tone in the negative. Thanks for your suggestion.

J. ROBSON (Heaton).—In blocking out negatives of machinery where there are a number of straight lines, it is best to do these first, using a ruling pen and ruler, and liquid Indian ink. Then the curves may be done either with the pen or a fine brush, whichever is the more convenient. The lines are then widened with the brush; but where an extensive surface is to be blocked out it is better to use black paper, just filling in between the lines and the paper with the pigment.

G. KIGHTLY (Frizinghall).—The reason books have not helped you is that the point is quite immaterial, as far as which it is best to shift is concerned, while tables of distances would be of little use, as the matter is always settled by actual trial, much the easier course. The length of bellows between negative and lens depends on how small the enlargement is to be. If you want to be able to enlarge "same size" (excuse the hull), the bellows must be fully twice as long as the focus of the lens.



FORFAR is to have a photographic society. Particulars can be obtained from the honorary secretary, Mr. M. Macfarlane, East High Street.

CEMENT FOR BINDING STRIPS. There is nothing for this purpose which sticks more firmly than dextrine. A little of the powdered dextrine, which can be got very cheaply at any oil shop, is mixed to a thick paste with cold water and applied to the strip with a brush. It may be used, instead of water, to moisten strips that are already gummed.

A PRINTING FRAME SUPPORT. A very simple but ingenious support for printing frames has been introduced by Messrs. William Tylar, Ltd., of Aston, Birmingham. It consists of a cross of brass with two uprights, which are attached to the printing frame by a couple of screws, on which it swings like a looking-glass. In this way it can be tilted so as to stand at any angle required by the light available. It is also kept clear of the ground, so that, if this is at all damp, there is no fear of the wet making its way to the negative or printing paper in the frame. These supports are 3s. per dozen quarter-plate, 6s. per dozen half-plate.

ASKAU. A simplified form of the powder process is shortly to be put on the market. The following sketch of it is given in "Photo-Notes": "A special sensitive film, which may be on paper or any other support, is exposed to light under a positive. After exposure the print is dusted over with a mixture of a dry powder colour and pure sea sand, and is shaken for a few moments. The colour mixture is then poured off and replaced by sand alone, which serves to clear the high lights of the image. By exposing the results to the fumes of turpentine, followed by steam from boiling water, the image acquires the power of taking up more colour, and so it can be intensified. The final operation consists of spraying the print with celluloid or other suitable varnish. Any colour can, of course, be used, and various colours can be applied locally with the aid of brushes, etc., or through stencils. Further than this, the print can be re-coated with a sensitive film and exposed and developed over again, like a multiple gum print. Stripping films also may be used for the purpose of enabling the image to be transferred to any kind of support, such as celluloid, ivory, metal, glass, porcelain, etc. The surface must be smooth and non-porous, and any material can be rendered suitable by the application of a varnish insoluble in benzine, such as celluloid, collodion, etc.

THE PHOTOGRAPHIC CONVENTION met last week at Canterbury. On Monday evening an address was given by the President upon "Photography and Art."

SOLUTIONS OF AMMONIUM PERSULPHATE, according to Professor Namias, are best made by using distilled water, cold, and making the solution very faintly acid with sulphuric acid. It should not be exposed unnecessarily to the light.

SENT, FREE OF CHARGE. Messrs. Burroughs, Wellcome, and Co., Holborn Viaduct, London, E.C., inform us that their new "Time and Temperature Table," which gives in condensed form a great deal of useful information regarding time development, to which we referred on page 501 in our issue for June 22nd, will be sent free of charge, together with other photographic literature, to any of our readers in reply to a postcard request.

EXPOSURES IN TELE-PHOTOGRAPHY. His method of ascertaining the exposure when a tele-photographic lens was in use, Capt. Owen Wheeler told the R.P.S., was by the old rule of multiplying the exposure required by the positive lens alone by the square of the magnification. He advocated the use even of slight magnifications as a means of avoiding undue camera extensions. He also strongly urged the importance of a black hood in front of the camera to prevent internal reflections in the lens, which otherwise might be a source of much trouble in telephotography.

TRANSFORMATION PHOTOGRAPHS WITH AUTOCHROMES. Sczepanik has suggested the possibility of taking three different pictures upon the same Autochrome plate, through three different colour screens. One of these would be made of Cassella's neutral red, one of naphthol green, and the third of Victoria blue. The same screens would be used for viewing the finished results, and the particular view seen on the Autochrome would then depend on the particular screen through which it was observed. In the same way "anaglyphs" can be prepared. These are stereoscopic views in two colours giving a sensation of relief by examination through spectacles with the two eyes of two differently tinted glasses.

"LONDON BY NIGHT" is the title of a booklet which Messrs. J. H. Dallmeyer, Ltd., have just issued. It is based on the article by Mr. H. Wild, which appeared in *Photography and Focus* for March 16th, 1909. Our readers will remember that in that issue we reprodnced some most wonderful instantaneous photographs taken in the London streets at night. These appear in the booklet in question, together with an additional one, "The Street Corner." Many of our readers, we feel sure, will be glad to possess a copy of these pictures, which are a fine testimony to the Dallmeyer portrait lens, carefully printed on good art paper, and of Mr. Wild's article and the editorial which accompanied it. The booklet can be obtained of all booksellers and through photographic dealers, price twopence

THE LETO TRIPLE MASKS for margin or shaded border printing are now made in four sizes, quarter-plate for use with half-plate boardoids, post-card size, cabinet size on whole-plate, and small panel on whole-plate boardoids. The two former sell at 1s. each, and the two latter at 2s.

THE PHOTOGRAPHIC RECORD of Sussex is inviting the photographic and other scientific societies in the county to consider whether they cannot increase their usefulness by joining the Record Association. Particulars can be obtained on application to Mr. Robert G. Pearman, honorary secretary, the Public Library, Brighton.

THE CRITERION BROMIDE PAPER has recently undergone improvement in the direction of securing better tones when sulphide toning is carried out. The Birmingham Photographic Co., Ltd., who make it, claim that stress marks are impossible with this paper. Certainly in our own practice we have never met with them upon it.

LOWESTOFT. Those who think of visiting Lowestoft would do well to send a couple of stamps for postage to Mr. W. R. Robinson, 229, London Road, S. Lowestoft, and get a copy of the booklet on the district. It has a special article on the neighbourhood from a photographic point of view, and is beautifully illustrated.

A SCREEN PLATE for colour work has been patented by Szczepanik, which is prepared by staining gelatine or gum with the three colours, pulverising it, mixing the three lots, and dusting the powder so obtained over a moist collodion film. The dye is given up to the collodion, and the gelatine or gum powder is then removed by washing.

THE SCOTTISH FEDERATION Blue Book has for its motto "Multum in parvo." It certainly lives up to it, for, although quite a tiny waistcoat pocket volume, it not only gives full particulars of the Federation itself, but contains a very useful and complete gazetteer to the resorts of Scottish photographers, with a list of dark rooms which are available free of charge to holders of the Blue Book. Mr. John B. Maclachlan, of Blairgowrie, who is responsible for this admirable little publication, is to be congratulated upon the volume for 1909, which has just made its appearance.

A ROUGH AND READY GUIDE as to the printing quality of a negative is to place the dry negative film downwards on a sheet of printed matter, and see whether the type is visible through the densest parts of the plate, such as the sky. If the type is just faintly visible, and the shadows of the plate are not veiled, or only slightly so, the negative will generally print well. If, however, the lettering can be seen easily, the negative is too weak for any permanent printing process, while if the type cannot be seen at all the negative is probably under-exposed and over-developed, and would only give a black and white hard print by any printing process.—"Yorkshire Post."

CORRESPONDENCE

The Editor is not responsible for the opinions of his correspondents.

DAYLIGHT PRINTING ON GASLIGHT PAPER.

Sir,—I have been doing a good deal of gaslight printing lately, and have come to the conclusion that all my "gaslight" printing shall be done by daylight in future. It is unquestionably quicker, and more convenient in every way.

Why is it one sees so little mention of this way of printing in any photographic paper?

From beginning to end I never leave my chair, as exposing, developing, and fixing are all done at one table. The washing I do afterwards.

My work table is a deal one with a drawer, and the table is placed close to a window with long hinged shutters that are easily closed and opened. I keep my paper in the drawer of the table, and sit near enough to the window to be able to hold the printing frame to the light from the half-open shutter. I have had excellent results this way, and there has never been one fogged. An exposure of from half to two seconds is usually sufficient.

Colonia, Uruguay, S.A. R. CUNNINGHAM.

WASHING PRINTS.

Sir,—The article printed in *Photography and Focus* on page 344 of the last volume is one which I can thoroughly endorse from my own experience. Perhaps the way in which I wash my prints may be of interest to other of your readers.

I take about two feet of floor boarding or other suitable wood, and pin round its edge the prints that are to be washed, as shown in the attached sketch, placing an equal number on either side. Next I fill the bath with water to a depth of about two inches more than the length of the prints, and float the plank on top, with the prints immersed in the water. I have found with this treatment that in about an hour there is not the slightest trace of hypo—or whatever is to be washed out—left in them.



Negatives may be washed in a similar manner by placing them in an ordinary drying rack fixed to the underside of the piece of wood.

The number of prints or negatives that can be washed at the same time is only restricted by the size of the bath or tank employed. The larger the bath or tank the better, as the greater the body of water employed (within limits) the quicker will be the process of diffusion. It is important that the prints, etc., should be kept clear of the bottom of the bath, to allow for the settlement of the hypo contaminated water which leaves them. Yours, etc.,

M. W. TATT.

CHIDDINGSTONE.

Sir,—In connection with your article on Chiddingstone and Penshurst, there are two features of interest which should not be overlooked. To obtain the best view of the "place," as a whole, pass the entrance to the church and go through the great gateway immediately in front. After passing the wall (left), go through a gate, and a little further on get over a stile on the left; the footpath trends up the hill to a clump of trees at the top. From this field, fairly early in the day, the outlook is most charming.

Also, leave the village by the Bidborough Road, cross the river, and a short distance up the hill and opposite a very picturesque cottage, enter a gateway on the right leading to "Swaylands." Pass on the right two of the finest hop gardens in this part of Kent, follow the path by the wall, get over a stile, and pass between a fine old wall on the left and an orchard on the right, and opposite the gardener's cottage at the end of the wall is a group of rare old houses lying a little down to the right. To get the light right I suggest an early morning visit, as they face, I think, north-east.

About threequarters of a mile further on is an old house dated 1593. Enquiry may be made here for a footpath-walk back to Penshurst.

Referring for a moment to the legend of Chiddingstone; the tale goes that a certain woman was very naggish towards her spouse; he took her to the priest, and she was duly "chidden" from the stone, but as no good resulted the priest's advice was to take her to the river and "heave her" (Hever) in. This was effectual.

But these stories—which are to be found in every village more or less—are the outcome of an over-imaginative disposition.

The truth of the matter is, the derivation is not "stone" at all, but comes from the Anglo-Saxon "tynan," to hedge or wall in, whence we have tun, ton, town, an enclosure, a dwelling, a village, etc. The rest is easy—Chidynge's ton (or town) (*c.f.*, Brighthelm's ton, Brighton, to quote a familiar example). Near Chiddingstone is Bullingstone. I have never heard of a legend connected therewith, but there probably has been one. Yours, etc.,

FREDERICK WILLIAM ELLIS.

PHOTOGRAPHY IN RUSSIA: DEVELOPERS.

Sir,—I am very glad to have obtained a prize in a *Photography and Focus* competition, as although I have been at photography for eight or ten years, I have never entered for any competition before, and did not think I had much chance against photographers at home, who turn out such picturesque prints of English scenery that I long to be over there again as I look at them.

The country here [Moscow] is only beautiful in a wild, uncultivated way, as a rule, but nevertheless much of it is decidedly picturesque. Unfortunately, we cannot get about the country so easily, as the communications are mostly of a primitive nature. We have also to contend with a lack of suitable photographic materials here. Backed plates have to be ordered specially from England, and there is not a great variety of printing papers from which to select.

Had it not been for your valuable paper, I should still be in the experimental stage, learning the simple lesson that to obtain correct gradation and approximately correct monochrome rendering the essential factor is correct exposure; and that, given correct exposure, any good developer will give a good negative and print.

Being, naturally, fond of careful experimenting, I think I have, for an amateur with limited time at my disposal, devoted more than my share to trials and experiments with different formulæ of developers, having spent two whole summers in this work alone. Still, I am far from thinking the time and labour of these experiments lost, for they have familiarised me with developers and their constituents thoroughly, besides inculcating the habit of extreme care and accuracy in my photographic work.

There is one point which especially struck me in the course of my work, which might perhaps be of some use to your readers who do not use the ready-made powders and developers that are now so easy to obtain, and save so much of time in making up and of risk of keeping stock solutions which may go wrong before they are used up.

I was much puzzled (when using the minimum amount of pyro, say in the Ilford formula, so as to obtain a thinnish negative) why, besides a general thinning of the negative or want of printing density, an equal lack of relief or rotundity of the image resulted with insufficient detail and relief, especially in the high lights. The full strength of pyro gave all that was required, only the negative was too dense all over. Dilution of the full strength of developer with water did not mend matters much.

It at last struck me that reducing the amount of pyro and leaving the carbonate the same strength as before must

naturally upset the proper proportion of accelerator and reducer. By reducing the soda solution to half strength at the same time as reducing the pyro solution, I adjusted them to their proper proportion again, with the result that the negative, though thinner, still gives all the relief or rotundity of image required.

The textbooks tell us the proportion of soda to pyro is not very important within certain limits; but all my experiments (and I have made hundreds of them) tend to prove that it is a most important matter, and that if the proportion is upset, by reducing the pyro, the result is a flatness of image which intensification will be found not to remedy sufficiently. I used to think it was the pyro and bromide that were responsible, and tried to remedy it that way, but soon gave it up, as pyro and soda alone in the correct proportion will do all that is required, if the plate is a fresh one and correctly exposed. I therefore advise that the Ilford full strength be taken as the standard, and if thinner negatives are required the pyro and also the soda should be reduced in proportion, keeping, of course, the total bulk of developer the same.

Yours, etc.,
GEO. E. WHITEHEAD.

The Advanced Workers' Competition for June.—Awards.

THE number of entries this month is about normal, and the general average of quality is well maintained. The criticism of those prints which were accompanied by stamped wrappers or labels is well in hand, and we hope to get the last of such prints away by the end of next week.

AWARDS.

SILVER PLAQUE.—"Spinning in the Sun." Miss Mordaunt, Izarra, St. Jean de Luz, S. France.

BRONZE PLAQUE.—"French Peasants in Jersey." E. F. Gilbert, 219, Shrewsbury Road, Forest Gate, Essex.

BRONZE MEDAL.—"A Cheery Old Soul." T. Mundy, 41, Albany Road, Windsor.

CERTIFICATES.—"Sharpening the Tool." Rev. R. Walker Berry, A.T.S., Knowle Green, near Longridge, Preston, Lancashire, and "Mountain Ash." John Perrin, 6, Westfield Place, Halifax, Yorks.

Special Subject Competition. "A Vessel Afloat."—Awards.

THE entries in this competition this month were about up to the average, both in quality and in numbers. We are glad to note also that competitors appear to have read and paid heed to our remarks last month on the subject of adhering to the rules; the result is that only one print was disqualified for being sent in mounted.

AWARDS.

SILVER PLAQUE.—"In Early Morning Light." A. W. Walburn, Upper Park Road, West Hartlepool.

BRONZE PLAQUE.—"Entering Harbour." C. D. Paton, Traquair Park, Pinkhill, Murrayfield, Edinburgh.

BRONZE MEDAL.—"With Swelling Sails." F. G. Prideaux, Clayton Cottage, Kilmainham, Dublin.

CERTIFICATES of honourable mention have been awarded to "Making for Port." E. F. Gilbert, 219, Shrewsbury Road, Forest Gate, Essex.—"The Evening Boat." Henry Warner, 80, Netherwood Road, West Kensington Park, London, S.W.

The Beginners' Competition for June.—Awards.

THE best pictures in the Beginners' Competition continue to be figure subjects, the beginners' landscapes being far behind these in quality. The difficulty of a blank white sky, often occupying nearly half the entire print, seems to be one which comparatively few can surmount.

AWARDS.

FIRST PRIZE (a signed copy of "The Complete Photographer").—"His Hobby." R. Hogben, 39, Market Street, Manchester.

SECOND PRIZE (a free subscription to *Photography and Focus* for twelve months).—"A Good Joke." John Heywood, 30, Cambridge Terrace, Gateshead.

CERTIFICATES of honourable mention have been awarded to "A Quiet River." Arthur Duckworth 109, Keighley Road, Colne, Lancs.—"Two Heads are Better than One." W. W. Knowles, The Myrtles, Honor Oak Rise, London, S.E.—"Interior, York Minster." Thomas F. Marr, 18, Rathen Road, Withington, Manchester.

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

SUBSCRIPTION.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
Twelve Months	6	6	Twelve Months	10	10
Six Months	3	3	Six Months ..	5	5
Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

REMITTANCES.—Postal Orders, Cheques, etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

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SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

EDITORIAL NOTICES.

ADDRESS.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment



CONCERNING SOME PRINTS

from our Competitions and the Meaning of the Word "Modelling."

TWO portraits that have been sent in to a recent competition in *Photography and Focus* lie before me, selected as demonstrating to some extent what is to form the subject of these notes. They are both portraits of ladies, and both are distinctly above the average of amateur portraits. One, we are expressly informed, is by artificial light, and it is possible that the extent to which it gains over the other is due more to the accident of that fact than to the merit of the photographer. I will hope not, and will believe that all the good qualities of the print are due to his skill and forethought.

The other, which is reproduced on this page, may be unreservedly praised on several grounds. It is very pleasantly soft and harmonious, the head is well posed, the drapery is subdued into a properly subordinate position to the face—that necklace in the other is a little too insistent — and the minor matters of technique have all had very careful attention. Yet in one matter this print is very distinctly wanting. It has a defect which is so often to be seen in amateurs' portraits that one is led to doubt whether a great many photographers realise its existence at all. We refer to the absence of modelling.

The term "modelling" is one which may perhaps call for a little explanation, as it may not be every reader who understands what is meant when we say of a portrait that it has good modelling, or of another that it lacks modelling. Perhaps the meaning of the phrase can best be understood by reference to this lady's portrait. Now if we look at the cheek which is turned towards the camera in this portrait, it will be seen that there is a very large area of it which is of one uniform tone. If we put two pieces of paper over the face, one just covering the eye and ear and all above them, and the other just cutting off the mouth and all below it, so as to leave just a horizontal strip of face visible between the two pieces of paper, and then if we cover the nose with a finger of the left hand and the neck with one of the right, we have the whole print covered except just that cheek. No one looking at what has been left uncovered would be able to form the slightest idea what kind of surface it represented. The tone is almost uniform over the whole area, and uniformity of tone suggests a flat surface. Hence the spectator who did not know what we were covering up might suspect it to be part of the background. We might do just the same with a good deal of the neck, getting simply a flat, uniform tone. Yet when we see the whole portrait we know that these areas, so far from standing for flat surfaces, represent beautiful curves, with hardly an inch, if so much, that is flat in any part of them. The "modelling" has been lost.



Portrait *By E. G. Howells.*

We ought now to be in a much better position to understand what is meant by the term.

Modelling we may define as the indication of contour by the play of light and shade upon it; and having pointed this out I will ask my reader to look at some of his own attempts at portraiture, and see how far he has succeeded in securing good modelling.

Let him cover up different parts, and see how far the light and shade on them will suggest their form, when he has no longer the sight of the rest of the face to tell him what it ought to be. Mind, Mr. Howells's portrait is by no means a very bad case; far from it. There is to a slight degree modelling on almost every part, but it is very slight, and, I expect, what little there is will not survive the reproduction process. Many of the amateur portraits one sees are far worse in this respect. Having pointed out the defect, it will be well to say something upon its cause. Its immediate cause, I am

afraid, must usually be put down to a failure to appreciate the necessity for modelling at all. When the photographer sets about taking a portrait, he seems generally to be absorbed in two things; one is getting light enough, and the other reflecting plenty of light into the shadows. So he pulls back curtains and draws up blinds, hangs a sheet over a clothes'-horse as close to his sitter as he can get, or, worse still, poses his model in the open air with a strong front light, beating down on right and left with equal impartiality. The consequence is that the light reflected from a surface at right angles to the line of sight is just about the same as that from a surface seen almost end on, and as a result the curved surfaces are represented as flat ones. Everyone knows that in copying this is exactly the sort of lighting which is best, for the excellent reason that it gives us less grain than any other.

Now, grain in copying is simply the "modelling"; and while when we are copying a print we give it as front a lighting as possible, in order that its grain may not show, in portraiture we want just the opposite. We want the play of light and shade on each part to indicate its contour. Quite apart from its utility in helping to portray the sitter, good modelling is beautiful in itself.

There is something that is strangely attractive in the gradation in tone upon some quite simple curved object, properly lit—a white flower, for example. Even a ball or an egg, objects which are too severely symmetrical for such a purpose, are not without their charm when the modelling is well done.

It does not necessarily follow from this that we must adopt exactly the opposite course, and simply light the sitter from one side. That would give too strong and aggressive a result to be pleasant, as we all find out when a portrait is attempted close to a window which is awkwardly situated in a corner of the room. But the light must not be direct front light, and its source must be concentrated.

In indoor portraiture, it will be found that concentration of the lighting is got, not by drawing blinds up, but by drawing them down, not by getting all the light we can, but by cutting out all the light we can spare. Actually, it is better not to draw blinds down, as even with the blinds as high as they will go, the source of light in a room is quite low enough. It is much better to block up the lower part of the window, only using, say, the top half. Then with a comparatively small source of light, we shall at once see how much easier it is to get modelling, and by moving sitter and camera different effects can be studied and arranged until a satisfactory one is obtained. The drawback of the plan is, of course, that the exposure required is increased, but it is not, or should not be, unmanageably increased.

When portraits are being made out of doors, it is not possible always, or indeed often, to concentrate the lighting in this way, and so it happens that many of the worst examples of want of modelling are to be found in portraits taken out of doors. This only applies to those taken in diffused light; in portraits taken in direct sunshine, which is, of course, the *ne plus ultra* of concentration of the source of light, we often find very fine modelling indeed.

Perhaps enough has been written to convince the reader that when a portrait is said to lack modelling it possesses a very real, tangible defect, and one which it is quite impracticable to rely upon luck to avoid. Unless the lighting of the sitter is very deliberately and intentionally studied, and it is deliberately controlled by blinds or screens so as to get what seems to be a satisfactory result, it is quite hopeless to expect that our portrait work will possess this very desirable characteristic.



Portrait by Artificial Light. *Allen E. Nield.*

Nor must it be forgotten that the sitter will be seen from the view point of the lens, and not from any other, and although an arrangement of the lighting which gives us good modelling on the face when seen from one point will, as far as modelling alone is concerned, be very likely to do the same from other points of view, this does not necessarily follow.

Nor is it only on the face or on the flesh that modelling may be apparent. These provide us with gradation in the lighter tones, and the hair will often be equally valuable for gradation in the darker tones. A photographer who has a dark haired model, and renders her "crowning glory" simply as a black patch, has ignored altogether the wonderfully subtle and effective tones which even the blackest of black hair will manifest when properly rendered in the print. And, as I have pointed out above, the secret of this proper rendering is in all cases a careful study of the lighting of the sitter. The nature of the modelling that is to appear in the finished picture is settled before the cap is taken off the lens.

The quality is not such an elusive one after all. It only wants to be looked for to be found. But if our portraits are to be successful, if they are to do justice to our sitters, and to be agreeable as pictures as well as faithful as likenesses, we cannot afford to neglect the power of emphasising contour and form by the play of light upon it. W. B.

CAMERA RAMBLES

RIPON, STUDLEY ROYAL, & FOUNTAINS ABBEY.

IT would be difficult indeed to find a place more suited to the "afternoon" and cyclist photographer than the three places, all close together, named above. Fountains Abbey is only two miles from Ripon, and the latter is easy of access either by cycle or rail from Bradford, Leeds, Harrogate, Ilkley, or York.

The park of Studley Royal, with its fine trees and ornamental lakes, will provide plenty of opportunities for woodland bits for those who like such work. It contains some deer, which will also make some good pictures for those who are able to stalk them with a hand camera. The pleasure grounds (admission a shilling) should not be missed, although the stiff and formal way in which they are laid out is not very favourable to photography. The River Skell runs through them, and from "Anne Boleyn's seat" there is a fine view of Fountains Abbey on the opposite side of the river. The road thence passes "Robin Hood's Well," where the "Curtal Friar" is said to have thrashed that popular outlaw soundly and thrown him headlong into the Skell below.



The Crypt, Fountains Abbey.



Fountains Abbey.

Fountains Abbey is one of the most famous ruins of England, and one of the most extensive. It was originally a Cistercian monastery, erected in the fourteenth century, and the remains are still in a fine state of preservation, as the photographs reproduced herewith will serve to show. Its situation by the side of the River Skell in a most picturesque and richly wooded valley will be sure to tempt the photographer to the exposure of many plates, and he will indeed be hard to please if amongst its ancient walls he cannot find subjects to his taste. A charge of 1s. is made to visit the ruined abbey, but no charge is made for a camera. Since the writer's visit he understands that a dark room has been fitted up somewhere in the ruins, and a small charge is made for changing plates.

A fine tower, fourteenth century, at the north end of the transept, still stands, and the cloisters, 300ft. long, are unsurpassed in England. Parts of the building date from the twelfth century. In 1140 it was burnt down, but in 1204 the restoration was commenced, and the foundations of a new church, of which the present ruins are the remains, were laid.



Ripon Cathedral



Fountains Abbey.

It is a perfect paradise for architectural studies. The church, like all such structures, is a specimen of the different styles of Gothic architecture. The greater part is Middle and Late Norman, the choir Early English, and the Lady Chapel of the same style with some later modifications.

Ripon Cathedral itself is rather disappointing to those who have seen some of the other English cathedrals. It is a small one, with a Perpendicular

nave, the choir being Decorated and Perpendicular. The crypt shares with that at Hexham the distinction of being the only Saxon crypts remaining. The screen between the nave and choir is in the Perpendicular style, and is a fine one. Externally, Ripon Cathedral is not imposing. The most satisfactory view of it is that shown in the illustration herewith, with the little River Ure in the foreground. Its appearance, from whatever point it may be photographed, is a little squat, and it seems to need the timber spires which formerly crowned its three towers. There are two other interesting ancient buildings in Ripon—the Maison Dieu (a fifteenth century hospital) and the Leper Hospital of St. Mary Magdalen; this latter is in Stammergate.

HOLIDAY INFORMATION.

Maidenhead.

There is probably no prettier stretch on the Thames than that from Maidenhead to Cookham Lock, and beyond to Bourne End. Maidenhead Bridge—one of the oldest over the river—forms a good picture from the river bank, with the many boats clustering round the Guards' boathouse and other landing stages. Between this and the far-famed Boulter's Lock are many good views, including parts of Cliveden Woods.

Places of Interest.

Bray Church (1½ miles) contains some fine brasses, and is supposed by some to be the scene of the labours and changes of the "Vicar of Bray."

Burnham Beeches (4 miles), with good landscape subjects.

The churches of Waltham, Shottesbrooke, and Camley Corner are worth a visit.

Dealer (darkroom), Frank C. Jones, 38, King Street, Maidenhead.

Bangor.

Bangor, on the Menai Straits, is a good centre for some of the finest parts of North Wales. The town itself has little that is of interest beyond its very small and unpretending cathedral. The *Clio* training ship can be seen from the pier, whence steamer can be taken (twenty minutes) to Beaumaris.

Places of Interest.

Beaumaris Castle, built in the time of Edward I., is a picturesque ruin. A splendid walk thence along the straits can be taken to Menai Bridge village, where the suspension and tubular bridges can be photographed. Church Island and the Marquis of Anglesea's column should not be missed. The return to Bangor may be made by road or rail.

The Ogwen and Cegin rivers abound in picturesque subjects. Amongst the spots on the latter Bishop's Mill should be seen. The Aber valley and falls, Ogwen Lake and falls, Snowdon, etc., are all easily reached from Bangor.

Dealer (darkroom). J. E. Owen, 74, High Street, Bangor.

Malvern.

Malvern provides a great variety of work for the photographer. The Priory Church has a Norman nave and column, Perpendicular exterior, grotesque carvings, mosaic and marble reredos, etc. Permission to photograph can be obtained from the vicar. The exterior, with the Malvern Hills as a background, is very effective.

Places of Interest.

The Worcestershire Beacon, above Great Malvern, 1,396ft. above sea level, affords extensive views, also tree studies, groups of children playing, etc. St. Ann's Well, about a third of the way to the top, is a spring of clear water, where are several good views.

The British Camp (4 miles) is an entrenchment capable of holding 20,000 men, and occupies the top of the Herefordshire Beacon, whence are fine panoramic views.

The Wyche Pass (1½ miles) is a deep artificial cutting leading to the Herefordshire side of the hills.

Eastnor Castle (7 miles, brakes daily) is the residence of Lady Henry Somerset. It is a fine mansion, with deer park and lake and good views.

Cowleigh Park — "a miniature Switzerland." Just beyond is Cradley, in the heart of the orchards and hopyards.

Ledbury (7 miles). Old houses and quaint streets.

Bromyard (20 miles). Views over the Downs.

Tewkesbury (15 miles). A fine old abbey church, river scenes (Avon), etc.

Ankerdine Hills (10 miles), with fine woodland scenery.

Worcester (8 miles). Cathedral, old houses, River Severn, etc.

Dealers (darkroom), W. and J. Burrow, The Devereux Gallery, Malvern.

Hitchin.

The little Hertfordshire town of Hitchin is not without several buildings of great antiquity, which should prove interesting to the photographer, although as the streets in which they are situated are very narrow, a wide-angle lens will be found to be almost a necessity. Amongst these may be mentioned the Boot Inn in Bridge Street, the Coopers Arms in Tilehouse Street, and the Biggin, near the church.

The parish church dedicated to St. Mary, dating from the fifteenth century, is worth a visit. It contains brasses, screens, and pictures of interest. Its porch, etc., are worth a plate or two. The Priory, with the park surrounding it, was founded in the reign of Edward II. for the White Carmelites.

Places of Interest.

Welwyn, with a very picturesque valley spanned by the Digswell Viaduct.

Letchworth, the "garden city," with varied examples of modern architecture, etc.

Hatfield (14 miles) on the Lea, with a beautiful park. Hatfield House, the seat of Lord Salisbury.



Local Intensification of Bromide Prints.

A saturated solution of potassium bichromate is diluted with its own bulk of water, and to each ounce is added thirty minims of hydrochloric acid. The mixture is applied with a brush to those parts of the print which are to be intensified, and, after changing the image to a light yellow, may be removed by washing. The print must be given several changes of a weak solution of washing soda for about five minutes, or else plain water for about half an hour, until the bichromate has all been washed out of the paper. After a rinse in plain water, the print is then placed in a developer similar to that used in the first place to develop it. This darkens the yellowed parts, leaving them finally of the same colour as the rest of the print, but more vigorous than before. A washing completes the process. This may be used to intensify the whole print instead of a part only, if desired. ("Photographic Scraps.")

A Reducer.

The reducing action of a solution of permanganate acidified with sulphuric acid is well known. It may not be so well known that a most effective reducer, which is much less likely to soften the gelatine film of the plate, may be made by taking a saturated solution of common alum, and adding to it sufficient of a strong solution of permanganate to make it reduce at the speed required.

Mending Dishes.

Broken porcelain dishes can be mended by moistening the broken surfaces with glycerine, and then applying a cement made by thoroughly mixing finely powdered litharge with glycerine to the consistence of putty. If necessary, a piece of canvas may be cemented with the same material across the joint. It should be left undisturbed for several days to get thoroughly dry.

Photographing Clouds.

Instead of pointing the camera directly towards the clouds, the lens may be directed towards a mirror of black glass, which should be arranged so that it makes an angle of approximately 55° with the axis of the lens. This will greatly increase the contrast in the clouds and enable cloud forms, too faint to be recorded in any other way, to be photographed successfully.

A Clearing Bath.

A solution which will remove a good many of the stains that negatives may incur is made of

Chrome alum	...	...	½ ounce
Citric acid	...	...	½ ounce
Water	...	...	1 pint

The negative is immersed in this and left for a few minutes; it is then gently rubbed with a tuft of cotton-wool, while under the surface of the liquid, and finally is washed and dried.



THE·LATEST·IN·APPARATUS·&·MATERIAL.

More Watkins Apparatus for Time Development.

TWO most useful pieces of apparatus for facilitating time development have just been put upon the market by the Watkins Meter Co. These are known respectively as the Watkins Time Thermometer and the Watkins Daylight Time Tank. Although they work together excellently, they are two independent pieces of apparatus, and will be separately considered.

The thermometer is one with a paper scale enclosed in an outer glass covering, and fits into a neat little wooden case to protect it from injury. Instead of being graduated in degrees according to Fahrenheit or any other scale, the Watkins Time Thermometer is graduated in minutes, one side giving readings for the more concentrated developers usually employed for dish development, and the other for the weaker solutions for tank work; but, of course, if the stronger developer is used in the tank, or *vice versâ*, the other side of the scale must be used in each case. As the gradation thus gives time of development and not temperature, and as the time is increased the colder the solution, the figures on the scales increase as we read downwards, and not upwards, as with ordinary thermometer scales. The price of the thermometer is half a crown.

The use of the thermometer is very simple. The developer is mixed up to a certain degree of dilution, which depends upon the rate at which the plates which are in use develop. A list of developers is given in the instructions, and the strength to which each should be made up, according to whether the plates are described as VQ, Q, MQ, M, MS, S, or VS on the Watkins card, is given. The solution prepared, the thermometer is put in it for a minute, holding it by the top that the warmth of the hand may not affect the reading, and the correct time of development is then read straight off by the height of the mercury.

A special form of the thermometer is made for the development of Autochromes; but the ordinary pattern can be used for that purpose if desired. In this case, one-half the times indicated on the "dish" side of the thermometer are to be given. This would slightly over-develop the Autochrome, reading, for example, two and threequarter minutes instead of two and a half; so to counterbalance this the "Quinomet" formula may be used slightly more diluted than is given in Messrs. Lumière's instructions.

The thermometer, it will be seen from our description, is an instrument which will be found most useful in all forms of time development, both with the various Kodak, Standa, and other tanks, and with dishes. The dilution given in the instructions should be regarded as a suggestion for a first trial, and the dilution thereafter employed should be based upon the results of that trial, the liquid being made a little weaker if the first developed negatives are too vigorous, and *vice versâ*. Of course, when the correct dilution for any one brand of plates has been ascertained in this way, there is no need to alter it at any subsequent time. The thermometer will always give the correct time of development straightaway.

The other novelty in time development apparatus which we have to notice is the Watkins Daylight Time Tank.



Fishing Harbour, North East Coast (*see page 41*).

This is a very simple and substantial metal tank in two parts, a rack and a container with spout. The rack, which also forms the lid of the container, is removed and taken into a perfectly dark room, in which it is a very simple matter to fill it with plates, without any light at all. In fact, it is almost as easy to fill it in the dark as in an ample red light. It is then slipped into the container, and the plates are at once entirely protected from the light. The tank is then tilted so that its spout end is the lower, the requisite quantity of developer poured in, and allowed to act for the correct time, giving the tank an occasional rock. During development, the instructions state "it is important that the developer be moved over the surface of the plates several times. This may be done (with a few plates) by tilting the tank, but the more efficient way is to pour all or part of the developer into the measure or jug, and then back again at once. It is more important to do this with pyro than with other developers."

The distinguishing feature of this tank is that the plates, instead of standing vertically in grooves, as in other tanks, lie horizontally one above the other. It is possible, therefore, to adjust the quantity of developer employed to the number of plates that are to be developed, and there is no need to fill the tank every time, unless the full number are within it.

We are often asked whether it is possible to fix as well as to develop plates in a tank. The Watkins Co. states that an ordinary hypo bath of four ounces to the pint may be used, but not an acid fixing bath, as this will attack the metal. In our own practice we always fix as well as develop in the tank, using plain hypo. There is no difficulty in getting rid of the hypo from the tank afterwards; in fact, the washing which it should receive in any case should be thorough enough to do this.

There is one feature of this tank which we should like to emphasise, and that is its sturdy construction. It ought to last a very long while if properly taken care of. That is to say, if, after washing it out, the separate parts are put where they can drain and dry, and are not left with water standing in them in a damp dark-room to rust.

The Pakol Toning and Fixing Preparation.

THE method of packing adopted by the White Band Manufacturing Co., Ltd., of South Croydon, is one which is well-known to most of our readers by now, many of them being users of the very convenient little "Pakols," which do away with all the bother of weighing out small quantities, and give a reliable and efficient working solution with great readiness.

The latest addition to the list of "Pakols" is one which gives a combined toning and fixing bath. There are two distinct forms of these, one selling at 2d. each "pakol," and the other, containing more gold, at 3d. The former is suitable for a warm tone and the latter for purple; and it is claimed for both that they will give such tones without any fear of sulphuration of the print. We have recently had an opportunity of trying both of these preparations, and found that they afforded a ready means of mixing up a combined bath which worked excellently. The instructions for doing this were very simple.

The contents of the smaller package are dissolved in four ounces of water, and then the contents of the larger package added. In this bath P.O.P. prints, placed direct without washing, tone to a fine purple in about a quarter of an hour, by which time also they are fixed.

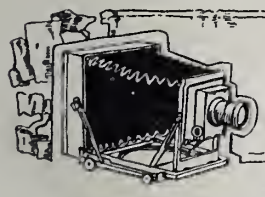
Being both cheap and efficient, we are not surprised to hear that "Pakols" are making their way in other countries as well as in the United Kingdom.

Tylar's Plate Marking Press for Postcards, Mounts, etc.

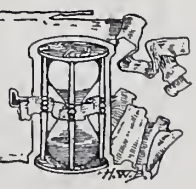
THE labour-saving devices for photographers in which Mr. William Tylar specialises have received a characteristic addition in a "plate marking press," which is almost described by its name alone. It is in the nature of a block of wood with guides on three of its sides, while screwed to its upper surface is a matrix. Another block fits into the guides and carries a stout metal die.

To use the press, the postcard or mount to which the plate mark is to be given is placed upon the matrix, and pushed right up to the guide edges. The top of the press is then placed in position, being also pushed up to the guide edges, and taking care that its marked end comes against the marked end of the lower part. Nothing more is then wanted but a gentle pressure in the fingers, or better still with the hand while the press is placed flat on the table, and the card comes out with a neat plate mark. If preferred the photograph may be raised instead of depressed, merely being put into the press the other way up.

This useful little appliance, which is substantially made, can be had for circles, ovals, or oblongs, price 2s. 9d. each post free in postcard size. Other sizes and shapes can be obtained, for prices of which application should be made to Messrs. William Tylar (Aston), Ltd., 41, High Street, Aston, Birmingham.



The Week's Meetings.



MONDAY, JULY 12TH.

Batley & D.P.S. Batley New Park.
Ashton-under-Lyne P.S. L. & C.P.U. Portfolio.

TUESDAY, JULY 13TH.

Sheffield P.S. Annual Meeting.
Hackney P.S. Members' Sale.

WEDNESDAY, JULY 14TH.

Everton C.C. "Oil Printing." G. Taylor.
Bristol P.C. Members' Night.
Ashton-under-Lyne P.S. Committee Meeting.

SATURDAY, JULY 17TH.

Halifax C.C. Kirklees.
Everton C.C. Rufford.
Chelsea and D.P.S. Beaconsfield and District.
Bradford P.S "The High Hall," Steeton.

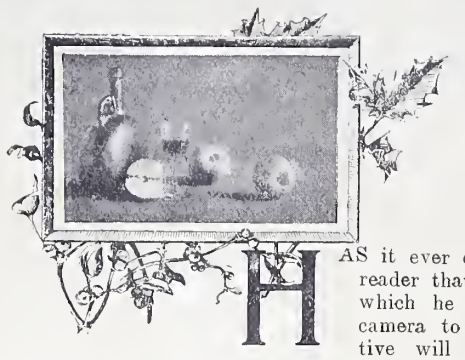
SATURDAY, JULY 17TH (*continued*).

Willesden Poly. P.S. Ickenham to Uxbridge.
Batley and D.P.S. Wintersett and Ryhill
South Suburban P.S. Dartford and Darenth Valley.
Wakefield P.S Askern.
Birmingham P.S. Broadway.
Hackney P.S. Zoological Gardens.
Manchester A.P.S. Great Budworth.
Handsworth P.S Bearley.
Oliver Goldsmith P.S. Gomshall.
Bowes Park and D.P.S. Canvey Island.

MONDAY, JULY 19TH.

Walthamstow P.S. Ten Minutes' Papers by Members.
Wallasey A.P.S. "Retouching." W. G. Hughes.
Bradford P.S. "Prints from Negatives taken during 1909."
Southampton C.C. "What Makes a Picture?"
South London P.S. Monthly Competition.
Bowes Park and D.P.S. "Bromoil." G. R. Boyce.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.



Prints on Plates.

Most effective pictures can be made by printing on ordinary plates, either by contact or by enlarging, and then backing up the picture so obtained by white or tinted drawing paper. The method of working is fully described below.

By Arther B. Turner. Special to "Photography & Focus."

HAS it ever occurred to the reader that the dry plate which he exposes in his camera to make a negative will serve equally well as the basis of a print? Not a flexible, unbreakable print on paper, it is true, but a richly gradated, agreeably toned print under glass—a print of which the colour can be controlled or modified in an instant, not only at the time that it is made, but at any subsequent period. Probably a few have been struck with the possibilities of such a process, and some have actually put it into practice; but it is by no means so widely known as it might be.



Doris. *By Mrs. Brooking.*

Examples of these prints on plates figure from time to time at exhibitions. Sometimes they are not made on dry plates, but are carbon transparencies on glass, backed up by paper; but these are outside our present scope. One which attracted a good deal of attention at the exhibition of the Royal Photographic Society some years ago was entitled "The Proud Turk," and was by Mr. J. S. Bergheim. This was a transparency on glass, backed up with blotting paper, and much amusement was caused by the confident way in which some of the "authorities" decided—and decided wrongly—how it was done.

The most suitable plates for work of this kind are lantern or transparency plates, as these are very slow, and so allow of the use of plenty of light in the dark room. The fineness of grain of such plates is not any appreciable advantage for that particular purpose, as the pictures are not enlarged, as in the case of a lantern slide, so that a plate which is fine enough in the grain for ordinary negative work will do all that is required for this purpose also. Nor is there any advantage in using one of the special lantern plates made to give warm tones, since the image that is of a rich warm brown in the lantern will be of a sickly yellow brown when it is seen by reflected light backed up by a piece of white paper. In fact, nothing answers better for this purpose than a perfectly plain black image, free from stain, such as can be obtained with any of the modern developers, if these are used with a proper proportion of sulphite. The following details, then, are suggested as a good way of making a print by this method from one's favourite negative.

The plate, fast or slow, lantern or ordinary, must be backed. There is no photographic process in which backing is more necessary than in this, for it must be remembered that the picture is going to be seen from the glass side, and that a trace of halation, which would not be noticeable at all in a negative, will be only too plainly visible when the plate is laid down on a sheet of paper, and viewed from the back. The exposure may be made either by contact or in an enlarging lantern, so that the picture may be made of any size we think best. If it is being made by contact, a word of caution may be necessary as to the extremely short exposure which is all that the ordinary plate requires under such circumstances. If a plate of ordinary rapidity is used, and the negative is free from stain and not too dense, five or six seconds at two feet from a gas flame (an ordinary, not an incandescent burner) will generally be found sufficient. In enlarging, too, we must remember that the plate is several times as fast as ordinary bromide paper, and must guard against over-exposure.

It is obvious enough that the exposure must be correct, but the development is quite as important, and it is certain that anyone attempting this work for the first time is more likely to go astray over the development than over anything else whatever. For it must not be forgotten that whereas with an ordinary transparency the light passes only once through it, and so its light-stopping power is only exercised once, in this case the light passes twice through the film, once on its way to the paper and once on its way back, so that as the light-stopping power of the image on the glass is exercised twice over, the use of the plate in this way doubles its apparent density. We have to be particularly careful, therefore, on no account to carry development too far; in fact, if this operation is stopped as soon as the plate appears to bear a picture of the requisite strength when merely looking down upon it as it lies in the dish, it will be found to be about the correct depth. The amateur's first idea, when he has fixed out such a plate, and sees how very ghostly is the image which it bears on its surface, will be that it is a failure, and is altogether too thin to be of the

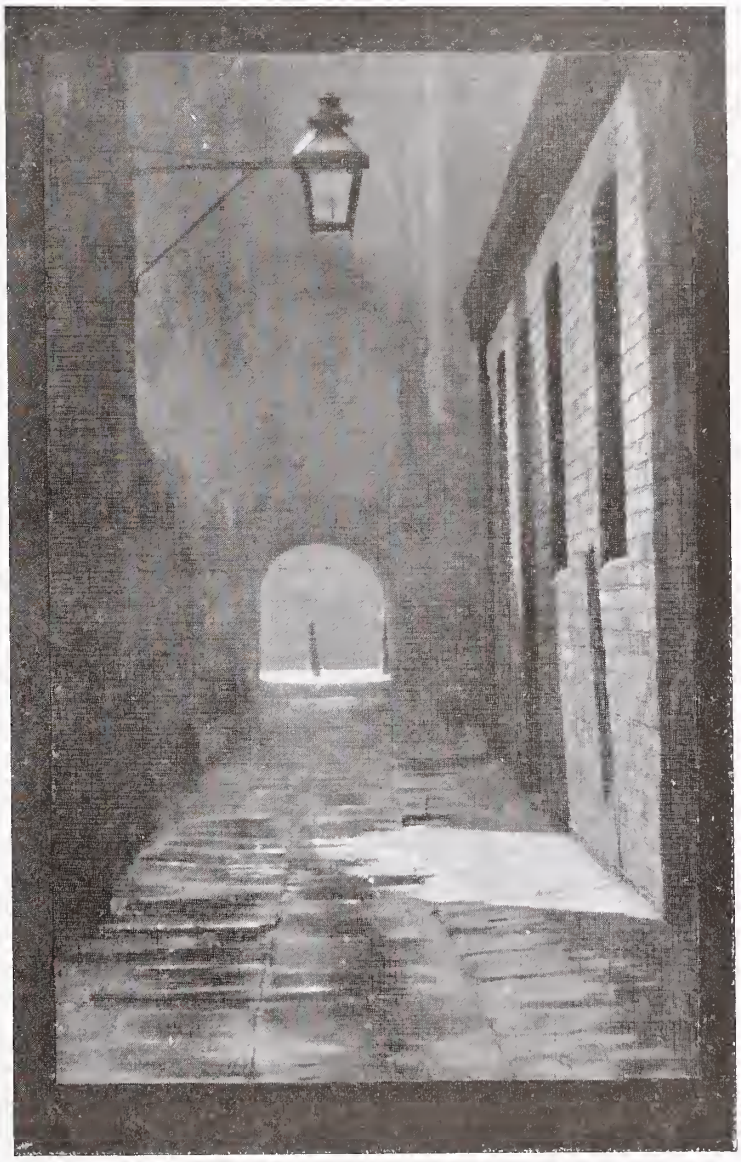
slightest service. But if he will go on with the work, wash it properly, dry it, and then put it film downwards on a piece of plain paper, he will probably find out how mistaken he was, and that so far from not having enough density for the purpose, the plate may look too thin, and yet have too much.

Absolute cleanness of image is most important. For this reason the developer must contain a sufficiency of sulphite, and the plate should be fixed in a bath of acid hypo. If a quarter of an ounce of potassium metabisulphite is added to each pint of the fixer, a very efficient acid-hypo bath is made with very little trouble. Then again, there must be exercised a proper amount of care, so as not to get the plate in any way light-fogged, or chemical-fogged, or there will be a tint over the high lights which will not be pleasant. If there should be a slight deposit, it can be removed by flooding the plate, after it comes out of the hypo, or, if it has been allowed to get dry, after a preliminary soaking for half an hour or so, with a dilute ferricyanide and hypo reducer. A small crystal of ferricyanide is rinsed in water, so as to remove any adherent powder, and is then crushed and dissolved in an ounce or so of water. A little of this solution is poured into a few ounces of the ordinary fixing bath, so as just to give it a pale yellow colour—nothing more, or the action will be too rapid.

This will be found to clear the plate of any fog, but it must not be allowed to act a moment longer than is necessary, or it will clear the image off, as well as the fog; in fact, the method should not be resorted to at all, if the very best result that can be obtained is what is wanted, the fogged plate being thrown away and a fresh exposure made, with due precaution to avoid the fog this time.

When the plate has been finished and dried, it has to be backed up. Before doing this, it will be well to settle how it is to be framed, because all these prints on glass are best framed in some way or another. If the framing is to be close up there is nothing more to be done, but if there is a white margin to be shown all round the picture this must now be put in hand.

It should be pointed out that the size of plate used will be governed, not by the size of the picture, but by that of the opening in the frame; and that, if the picture is to have a white margin to it, we must be careful to print the picture in the right position on the glass.



"A ray of yellow sunshine lit up the dreary alley."

By Frank Bolton.

The actual margin is made very easily. The first thing to be done is to rule carefully on the film, in pencil, the boundaries of the picture. Then, with a sharp stiff knife (the point of a pocket-knife is the thing to use) and a flat ruler, a sharp cut is made along each of these lines, right down through the film to the glass. Using the knife almost parallel with the glass, this cut is then widened, on its outside, until it makes a clear glass line about an eighth of an inch wide all round the picture. This is easily done, but it takes a little time and a little care. When once it has been done, the removal of the rest of the film all round the picture may be done with much less care, and very quickly, scraping the surface of the glass as clean as it is possible to make it with the knife held almost flat. The last traces of the gelatine can then be removed by wetting and rubbing with a cloth, so as to have nothing but perfectly clean glass all round the picture.

The backing-up process has this advantage: that it in no way permanently affects the print. The paper is not cemented to the glass in any way, merely laid against it, and so we can go on trying paper after paper until we get one which is exactly suitable. It may be taken as a general rule that the papers for this purpose should be either white or only lightly tinted; since if the paper is at all dark it will degrade all the lights of the print, and the final result will be too heavy.

Some most effective pictures by this process have been made by taking a paper of a fairly dark tint, and applying chalk to it behind some of the highest lights, so as to pick them out from the rest; but this is hardly legitimate photography, and it is certainly very difficult to accomplish so that the chalk and the picture register and harmonise. It would be better for the amateur, therefore, to avoid these experiments, and rest satisfied with the use of plain papers, of which there are a wide range.

When he has found one which is satisfactory, all he has to do is to cut it to the size of his glass, place this in the frame, put the paper down on the film, with a few pieces of blotting paper cut to size, to bed the paper well up against the picture, and then to fasten in the back. The paper does not have to be cemented down on the picture to give a mounted-print effect, but it is important that it should be pressed gently into contact all over; hence the need for a pad behind it.



IN THE PARK, EARLY MORNING. *Awarded the Bronze Medal in the Advanced Workers' Competition.* BY T. MUNDY.

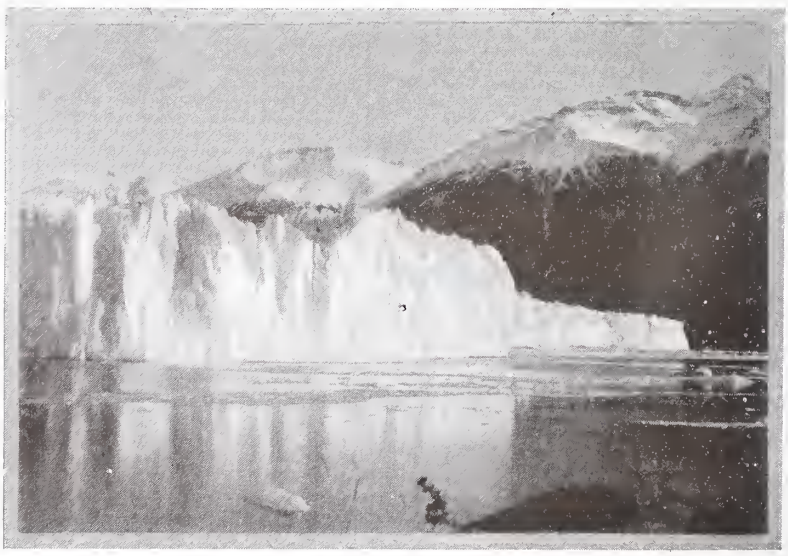
Amateur Photography in the Argentine.

FROM Punta Arenas, in the Argentine Republic, comes a letter from a reader of *Photography and Focus*, enclosing one or two prints and telling of some of the difficulties of photography in that far off region. "It may possibly interest you to hear from one of your subscribers in the 'back of beyond,' to which your very helpful hints and advice have penetrated," writes "Lago." "I am not much more than a beginner in the photographic line, and in this place where a letter is six months old before an answer can arrive from England, I have to make my own little dodges serve whenever I can.

"My darkroom, and the plate and print washing arrangements, which are outside the darkroom, are both inside my carpenter's shop, where I do a lot of work, especially in winter. Winter here is not to be played with.

"For washing photographs I have fixed up an arrangement of two large wooden tubs, one above the other. Both are filled with water, and a rubber tube syphons out the waste water from the lower one, drawing it away from the bottom, so as to get rid of the hypo. The upper tub is fitted with a tap, by which its water is allowed to run into the lower; it is easy enough to make the tap and syphon run at the same rate, so that a steady flow of fresh water is maintained through the lower tub, in which are placed the negatives or prints to be washed. The syphon with which the lower tub is fitted empties itself into a bent-up open pipe which passes through the wall, and so the water runs away outside. The plates or prints are floated in the tub by means of corks.

"I send you a print of one of the glaciers entering the lake here, which will serve to give you some idea of our local scenery. I have to thank you for the help your paper has been."



One of the Glaciers on the Lago, Argentino, S. America. *By "Lago."*



IMPERIAL PLATES

PILOT THE WAY.

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

EVERY amateur who is not blessed with the possession of expensive apparatus ought to give himself and his camera the privilege of a holiday at the seaside rather than inland. For on a sunny day on the beach even the slowest lens on the cheapest black box will probably turn out a really fully exposed picture, and a properly-graded negative, taken instantaneously, is not too common.



All Sorts and Conditions. *By H. C. Messer.*

His seaside shots, because fully exposed, will teach the beginner to be dissatisfied with the chalk-and-soot results which hitherto pleased him, and will afford him a new thrill of pleasure into the bargain. There is a quality of brightness-cum-tonality about even the ordinary snap of scenes on the sands which comes as a delightful surprise to the man who has only photographed in streets or inland landscapes. This quality, believe me, is far less due to the charm of the subject, or to the mere fact of its brilliant illumination than to the simple circumstance that this illumination has given a properly exposed plate. The same dainty, high-keyed brightness is just as obtainable inland, if only the exposure be ample. But it so rarely is ample, alas!

One item I should like to mention, if I may be allowed for a moment to stray from my rule of eschewing technical matters. It is this. At the seaside, because there is so wide a sky and such a quantity of glare reflected from below as well as falling from above, a lens-hood is doubly desirable if sparkling negatives, unveiled by any unwanted fog-film, are to be produced. Amongst the countless seaside prints which I have been examining, I have observed quite a number which were less vigorous than it seemed to me they might have been, and I hold that unhooded lenses are to blame for this. A flap sky-shade is good, but an actual tube sticking out all round half an inch, or maybe as much as an inch in front of the lens, to



Children's Corner at Scarborough.

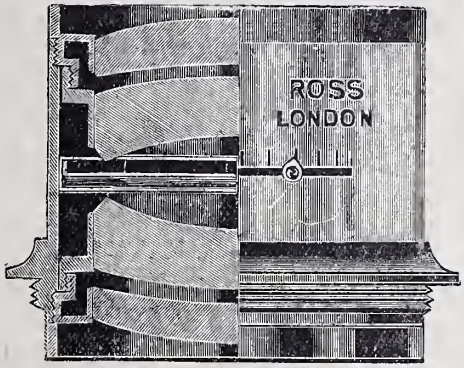


Sea Nymphs *By Arthur Mann.*

THE BEST AND THE MOST UNIVERSAL LENS

For Amateur or Professional Photographer.

HAS NO EQUAL
FOR HAND-CAMERA WORK,
FOR
PICTURES FOR
AFTER-ENLARGEMENT,
FOR TELEPHOTOGRAPHY.



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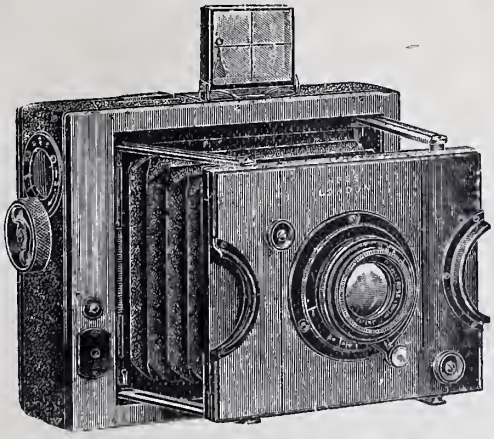
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keep off side-rays, is better still. It can readily be made of a slip of black paper fixed to the lens by an indiarubber band.

Passing now to the prints which lie before me, I find a large percentage which represent crowds on the beach, playing or bathing or lounging. "The Children's Corner at Scarborough" is an average example of this sort of thing. On the face of it this is clearly a very exact and characteristic rendering of a well-known view, and, as such, is good enough. But it suffers from the fault of all such wholesale kinds of pictures—its interest is not concentrated.



Tobogganning the Sand Dune. *By J. Roland Torrance.*

The eye roams all over it, picking out each separate small group, and trying to distinguish what each is doing. Thanks to the perfection of photography, it is easy to see what each is doing. But looking at a scene such as this, in real life, one would carry away a more general impression, surely—a general impression of happy activity, but not so detailed a set of minute dramas as this.

The same criticism might be applied to "All Sorts and Conditions," but here, I take it, the photographer has made his photograph purely as a curiosity—a wonderful photographic rendering of the myriad details and incidents of a wonderful crush of pleasure seekers. I do not think I am doing him an injustice if I opine that he had no pictorial intentions. Perhaps the authoress of the Scarborough view had no pictorial intentions, either; but she might have had. There are pictorial possibilities in her picture, and there are scarcely any in "All Sorts and Conditions." The said pictorial possibilities have not been made the most of. Even rendered as a whole, like this, the niggling details might have been softer and more suggestive instead of so literal.

But wiser would it have been to isolate some group typical, more or less, of all the groups; to go down for instance, to the edge of the briny and there catch some paddlers or bathers—not a hundred of them, but say one or two. "Sea Nymphs" shows the type of subject I mean. Every figure in this group is animated with the holiday spirit, and although the whole performance is not technically so good as either "All Sorts" or "Scarborough" it tells the story of an August memory just as plainly, and with more reticence.

The foreground figure makes an excellent principal object. Her attitude is natural and naive, and the largeness of the figure throws back the others, who have ventured further out, nicely, and gives—with the help of the distant boats—more than a suggestion of atmosphere.

Neither of the other two prints has any principal object at all, and that is why they lack concentration; and they also lack the atmosphere which "Sea Nymphs" has got.

Or one's seaside memento-photographs may be made up of little, unambitious records of actual incidents, like "Many Hands make Light Work." This is precisely the sort of print for an album of holiday memories—far more truly a holiday memory than the Scarborough view, for the Scarborough view memorises too much; it is more than one memory, it is fifty memories. Whereas a seaside episode like the pushing and pulling in of this boat on the beach is an episode and nothing more.

"Sand Tobogganning" is a memento of another type—quieter and lonelier, but still with human interest. The two figures slithering down the sandhill are not very prominent—and they have moved a shade faster than the shutter—but their position on the plate is well chosen, and the general airiness and breeziness of the thing is admirable, though perhaps too delicate in its tones to reproduce as crisply as it deserves. Without the figure the scene is still a well-composed one, and with the figures at any other point on the sandhills its composition would have been spoilt.

"Fishing Harbour, North-east Coast" (reproduced on page 36), shows that sheer solitude may be as aptly a memory of the seaside as the gayest nigger-haunted promenade. This print has faults; it is not trimmed truly, so the horizon slopes, and it is a trifle under-exposed. But it is interesting as a demonstration of what trifles may make or mar a picture.

Without the seagulls this picture is nothing at all. With them it conveys a real impression of solitude, of a wind-blown sky, and of a cold sea coast. Delete these gulls and there is nothing left. Although I cannot read the thoughts of this photographer, I am sure his memory of that harbour is interwoven with the screaming of the gulls and the emptiness, except for the gulls, of the sky.

In short, it seems to me that the picture which records a genuine seaside memory—an "impression"—must be superior to one which is a mere "general view" of a place or a crowd. You can buy this latter species of picture by the dozen; the former is intimate, and no other soul on earth may have seen the thing precisely as you saw it. That is what gives it value to yourself. And oddly enough, that is often just what gives it value to a larger audience, for that is what infuses into it the touch of personality which causes it to take unto itself the mysterious and intangible "something" which we call "art."



"Many hands make light work."



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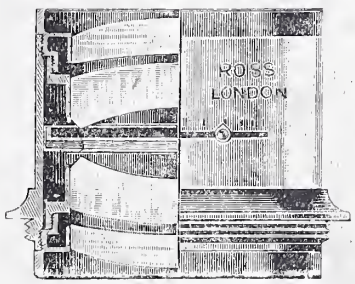
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PRACTICAL NOTES ON PHOTOGRAPHIC LENSES

Special to "Photography & Focus"

The Homocentric Anastigmat of Ross, Ltd.

THE photographer is often told that he must not focus with the largest aperture and then stop down, but must focus with the stop which he is going to use for the exposure. The reason for this advice is that with some lenses, as the lens is stopped down the focus alters, and the name given to this characteristic is "Zonal Aberration" or "Intermediate Spherical Aberration." We do not propose to describe this terribly termed defect any further, and have only referred to it in this place because the most distinctive feature of the very beautifully designed and constructed photographic instrument which is the subject of this article is its conspicuous freedom from "Zonal Aberration." So that as far as the Homocentric lens is concerned, it makes no difference whether we focus and then stop down, or stop down and then focus. The focus remains unaltered. There is a slight difference in this respect between the f/5.6, the f/6.3, and the f/8 Homocentrics, those with the largest apertures not being quite so free from it as the f/8 lens, for example, but even in the case of the fastest of all it is present only to so minute a degree as to require a most elaborate test to reveal it. To the photographer using the lens it will remain quite imperceptible.



Section through the complete Homocentric lens.

But in what we have written above we have dealt with only one feature of the Homocentric, although it is its most characteristic one. The lens is interesting in design, seeing that it consists of four separate uncemented meniscus lenses, disposed symmetrically two and two on each side of the diaphragm, as is shown in the illustration herewith. The front or back pair may be used separately, providing single combinations of nearly double that of the complete lens; but when this is the case they require to be fairly well stopped down. In fact, they are seen at their best in the complete lens, which is noted for the extreme crispness and brilliancy of its definition with its largest aperture and over the whole field.

That field is a large one, especially with the Series IV. f/6.8 and V. f/8. A typical lens of this last-named series is the 7in., which covers a half-plate with its full aperture, even when the front is raised. Stopped down, it will easily cover a whole-plate and still allow the rising front to be used, the actual diameter of the cone of light admitted by it on the screen when focussed for infinity being over 12in.

The Homocentric lens, on the general lines shown in our illustration, is made in five series, which work respectively up to f/5.6, f/6.3, f/6.8, f/8, and a second series at f/8 specially made for process work. The f/5.6, or Series II. lens, is not only an admirable instrument for hand camera, and particularly for reflex, work, but finds wide employment as a portrait lens, for which its high rapidity well fits it.

An entirely uncorrected lens, as our readers know, has a different focal length for light of each colour, and for this, if for no other reason, gives a diffused blurry image. To get over this, lenses are "achromatised," or "corrected for colour," the curves and material of which they are made being so arranged as to bring the rays most active visually and those most active chemically to a focus at the same spot. For all ordinary photographic purposes this is all that is needed. But for three-colour work and for copying by some forms of artificial light this is not sufficient, and the lens must be "apochromatic," or corrected not for two but for three different colours; and this feature the Homocentric possesses very conspicuously amongst its other virtues.

Those other virtues may be summarised by saying that they are those which we have come to regard as essential in a modern high-class lens. Complete freedom from distortion, from astigmatism, and from spherical aberration: a perfectly flat field, and freedom from flare spot or ghost. On these points there does not seem to be anything to choose between the fastest series and the rest. The slower series are lower in price, and include relatively a larger angle, but otherwise the good qualities possessed by one it shares with the others.

The uses to which the Homocentric lens can be put cover the entire field of photography, except that of extreme wide-angle work. The smaller sizes make the best of hand camera lenses, and, as just pointed out, the f/5.6 series is very suitable for portraiture. For architectural and general photography, for enlarging and copying, and for process work they are deservedly popular. With a suitable negative lens, also, the Homocentric makes an admirable telephotographic combination.

Before leaving the subject, we may point out that the larger lenses are mounted in brass, the smaller in an aluminium alloy known as "Staminium." They are supplied in focussing mounts, in ordinary mounts with or without diaphragm shutters, and with a sunk setting suitable for reflex cameras, the metal work in each case being worthy of the fine quality of the lens it contains.

The Homocentric lenses are made by Messrs. Ross, Ltd., at their works at Clapham Common. Messrs. Ross publish an interesting and excellently illustrated little book on the Homocentric lens, its origin, and attributes, which we would strongly advise anyone contemplating the purchase of an anastigmat to send for.

To prevent any misunderstanding, it may be as well if we point out that Messrs. Ross also make a lens which they call a "Compound Homocentric," but this is of construction quite different from those dealt with in this article, being a six-lens cemented doublet.

"WELLINGTON"

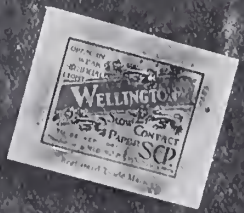
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S. C. P.





"The time has come, the Walrus said, to talk of many things"

OF all the many words whose meaning has been obscured by their careless use in application to photography perhaps one of the greatest sufferers is "atmosphere." I used to think that the atmosphere was the aerial envelope which surrounds the earth much as the skin encloses an orange; and to some extent I am aided and abetted in this view by my dictionary. But as the dictionary is only a cheap one it may be deceiving me. At the same time I would rather accept the decision of even a penny dictionary than of most photographers. There are some who do not recognise the existence of atmospheric rendering in a photograph if anything is visible beyond the immediate foreground. Their idea of atmosphere is something you can saw out in lumps and knock tintacks into. This may be described as Manchester atmosphere; although my experience of London compels me to admit that the same kind of thing, only worse, is occasionally to be met with there.

* * *

This is but a narrow view to take of the meaning of the word, and does not account for the use of the expression "a clear atmosphere." Indeed if atmosphere only means hazy or foggy air it follows that there are parts of the world where atmosphere does not exist. Take a photograph clear and bright right away to the farthest distance, and the know-all who passes his cocksure opinions on all sorts of things he does not understand will pompously tell you that it lacks atmosphere. Get the same thing out of focus so that it looks like an illustration of the effects of myopia, fog the plate by ignorant manipulation, make a print on stale paper with a surface like sackcloth, and the same omniscient critic will gibber about the fine feeling of atmosphere. I knew a photographic writer, and a capable one too, who suggested the introduction of atmosphere into landscapes by means of burning wisps of wet straw behind a hedge. If there was no hedge in the picture, presumably the proper thing to do was to plant one and wait till it had grown sufficiently before exposing the plate. But this suggestion, it must be admitted, was made some time ago, and I have now come across a description of some more modern methods of securing atmosphere in photographic prints.

* * *

Before I refer to these useful hints further I will pause to say a word on another matter. There is evidently a widespread opinion amongst readers that to suit my own base ends I am in the habit of unblushingly inventing quotations—that I refer to newspaper cuttings and to correspondence which do not exist except in my disordered fancy. This is not the case. In the first place, I am too indolent to be inventive, and in the second place there is no necessity. The editor will bear me out that when I refer to a letter received, that letter actually exists; and that whenever I quote actual phrases the quotation is perfectly genuine. Let me give a recent example. A clergyman wrote to me the other day expressing astonishment (and no wonder) that I could go on regularly, week by week, writing this sort of drivel. He said he recognised the difficulty because he had to turn out something weekly himself. I hope he did not mean to suggest that his sermon and my piffle were in any sense analogous. If I thought that I would stop writing.

* * *

After this digression I trust that readers will not be sceptical when I quote instructions from a photographic article on the production of "atmosphere." The writer first points out that "the ordinary amateur photograph is full of white empty skies." This is very sad. It would be bad enough to show only one white empty sky, but it is deplorable when skies are dabbed about here and there all over the picture. They are particularly unsuitable in portraiture, unless they can be used for trimmings, and are decidedly out of place in architectural interiors. Note that it is only the amateur who transgresses in this respect. The professional avoids the white empty sky by taking care that it is dirty and full of pinholes.

* * *

The writer goes on to say that "atmosphere should not be confused with light and shade." I agree. This mistaking of shadows for atmosphere is one of the most regrettable tendencies of modern photographic work, and should be made a punishable offence. As the gentleman says, "Shadow is merely a stoppage of the direct rays of light, whereas atmosphere can be simply described as a very fine mist." Of course, atmosphere *can* be described as a mist, as it can also be described as a small pink fish with blue spots and a yellow beak; and it is to be hoped that no one in future will describe the shadow of a brick wall as atmosphere.

* * *

Taking it for granted, then, that atmosphere (whatever it may or may not be) is desirable, we are informed that it "can be produced by subterfuge." That is just what I feared. It fully accounts for some of the so-called atmosphere I have seen in prints. It is not a fine mist, but a subterfuge. It looks like it. One of the subterfuges recommended is to throw a part, or the whole, of the picture out of focus. If the picture is sharp, there is no atmosphere; if it is hopelessly fuzzy, the atmosphere is spread on with a trowel. Of course, the "fine mist" so secured is not the genuine article; it is a subterfuge mist, but it will serve. Should we, however, unfortunately secure a sharp picture, we can introduce the essential atmosphere by placing a piece of glass between the negative and the printing paper; or, if it is a film negative we can print from the wrong side, although the amount of atmosphere thus obtained is hardly worth dignifying by the name of subterfuge. Another useful method of introducing atmosphere is to assault the camera violently during exposure, treating it to one or two good hard knocks or a substantial kick on the tripod. But, as the writer sadly admits, this often fails to secure the desired fine mist, and frequently results in a multiplication of image that is difficult to accept even as subterfuge atmosphere.

* * *

After all this no one need have any future difficulty on the score of atmosphere in photographs. If he does I will add another useful hint to those already given. The dodge is an old one, but none the less serviceable. It consists in the actual employment of genuine fine mist. This is not distributed over the whole landscape, but is placed on the lens itself by the simple expedient of breathing on it. A few favoured photographers can place atmosphere over a whole panorama in one breath, but the ordinary rank and file had better put it all on the lens. Even then it may crack the lens.

THE WALRUS.

SUBSCRIPTIONS.

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Landscape Photography in Summer.

Hints on the Rendering of Skies and of Water: Sunrise and Sunset: Ripples and Reflections.

ALTHOUGH the text books tell us that the camera should not be put away in winter, but that that season may be made just as prolific in landscape work as any other, there is no doubt that by far the larger proportion of landscape photographs are made in summertime. Perhaps it is that, thanks to our variegated climate, we can get all the winter pictures we want in summer, or perhaps it is that there are many indoor occupations for winter which have greater claims on us. The fact remains that we are at the present moment in the very middle of the landscape worker's harvest, so that the subject of this article is at least topical.

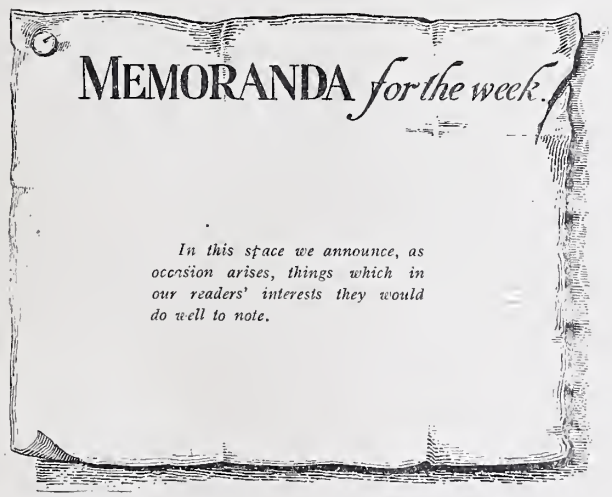
Coming fresh from the inspection of several hundred prints sent in to our competition, one cannot fail to be struck with the prevalence of one defect more than any other whatever—a defect that may be described by saying that it is the result of pointing the camera too high. Whatever may be the case with architecture, there is no reason whatever in landscape work for the camera to be level. Any distortion—it is not actually "distortion," but merely departure from the conventional method of representation, but we will call it distortion for the present—any distortion that is caused by tilting the camera is quite unnoticeable and unimportant, while at the same time the tilting at least gets rid of much of the sky.

"Is no Sky to be Shown?"

"Are we not to show any sky in our pictures?" at once enquires the reader. By all means, we reply; show as much as you like, but translate it truthfully, and if there is to be much of it, see that it is properly broken up by masses of light and shade. A perfectly blank expanse of white, which is what most beginners get to represent the canopy of heaven, is mere disfigurement. It would not be more wrong, and certainly no more objectionable, if it were represented as black instead of white. Even when this defect is avoided, either by keeping the negative thin enough for its clouds to print out or by printing in a sky, there are still the others of incongruous clouds, or else an expanse that is only broken up in a fiddling and weak way by faintly suggested clouds out of all truth of tone with the rest of the picture.

For this reason, then, we suggest that the camera should be tipped down. It is only a subterfuge or a trick; but if the sky is to present insuperable difficulties, it is pardonable to attempt to dodge them. The tilting of the camera is only one way of doing this, of course, and any of the others may be adopted as circumstances suggest. The lens may be lowered, or a picture may be selected in which the sky is completely hidden by trees. If the landscape worker who has had trouble with his skies makes up his mind, for the time being at any rate, to avoid it simply by resolving to arrange pictures in which no sky shall show at all he will be surprised how much his work will gain in effectiveness.

The blank or very light sky makes all the rest of the picture look too dark by contrast. Generally speaking, we want to get the highest light somewhere in the landscape part of the subject; but it is not easy to do this if we have a lot of sky showing. The ugliest form which this takes is when the sky is cut up into innumerable little white patches by the branches of trees. All restfulness or quiet in the picture is lost by this spottiness, which is only too easily obtained as a result of overlooking this part of the picture when arranging the subject on the focussing screen. This



can sometimes be remedied by sunning down the upper part of the print so that it looks merely like a dense mass of foliage; but it is very easy in this way to get an altogether false effect.

Surprised at their Thinness.

The blank white sky is often put down to the use of plates that are not orthochromatic, but this is hardly fair to the plates. Certainly if we want to get the cloud forms in anything near their correct tone value we must use orthochromatic plates and a screen as well; but over-development is responsible for most of the extreme hardness in the skies of negatives, and this over-development is generally due to the possession of an incorrect idea of what the best kind of negative should look like. For most technical purposes a negative with plenty of contrast is to be preferred; but for pictorial work the best results are always obtained from very thin, delicate negatives, which want most careful attention to avoid the least trace of over-printing, which is at once fatal to success. Whenever the "man in the street" sees for the first time some of the negatives of our best workers he almost invariably remarks on their, to him, extraordinary thinness.

The Glories of a Summer Sunrise.

The least satisfactory time of day for landscape work in summer is between ten or eleven in the morning and three or four in the afternoon. There are some subjects which must be taken then, as at no other time is the sun in the right position for them; but these are not very numerous, comparatively speaking, and the great majority of subjects allow us to photograph them when the sun is not directly overhead, but is low, casting long shadows that are so useful in our compositions very often, and when, instead of the clear, hot air of midday, we have the morning or evening mists, softening the distance and providing "atmosphere" (*pace* "The Walrus").

The early riser will find that he is more than repaid for that virtue in the morning aspect of the country, and in this respect one can hardly be too early, provided it is daylight at all. The charm of rural scenery when the sun is just rising is different in kind from the charm of sunset, but is in no way inferior in degree. Photographically, the early morning is very often to be preferred, as the mist and haze, which soon disappear after the sun is up, are more in evidence. No more lovely landscape lies in our memory than some of the outskirts of Dartmoor in the very early hours of a summer's morning. We have seen the same district at other times and seasons, but soon after a July sunrise holds the palm for beauty.

Water in Landscapes: Some Difficulties.

One of the features of English landscape in particular is the large part which water plays in its attractiveness. Our great painters realised this, and photographers following in their footsteps make extensive use of rivers and lakes in their pictures. There are some aspects of a sheet of water or a stream which are not by any means easy to deal with. One of these is when the surface is absolutely unbroken, and repeats, as in the most perfect of mirrors, every detail of the landscape. It is very beautiful to the eye, but is commonplace in a photograph, when it has been shorn of all beauty of colour; it is also pictorially most unsatisfactory, since the perfect repetition makes the picture too symmetrical. The old advice still holds good—to throw something in to disturb the surface. It need be nothing very large—a pebble pitched into the right spot will represent a rise—and when the circles it causes have spread out far enough the exposure may be made.

Even worse than the mirror with its reflections is that aspect of the water when it appears as a mere sheet of white, reflecting the sky. There is nothing to do in such a case but to defer the exposure until the lighting will be different, as any attempt at photography will give us a mere blank area of water, almost, if not quite, as bad as the blank sky referred to above. Of a similar class is the water when its surface is broken by a uniform series of ripples, making a mere mass of bright spots, with which one can do nothing.

The water which will be found most useful pictorially is water in which there are reflections, it is true, but reflections which are not a mere repetition of the forms of the objects reflected, but show them modified or softened by the movement of the water itself. Such we can often find along the shady banks of a river, but they are perhaps at their best when the things reflected are the moss covered timbers of some old weir or bridge, beautiful in themselves, and beautifully softened by repetition in the gently flowing stream.

R. C. B.



Dark Room Dialogues.

Quite a number of readers have written congratulations on the revival of "the sunburnt man" and his two friends, whose reappearance in the special issue of *Photography and Focus* a fortnight ago started a second series of those "Dark Room Dialogues" which formed a prominent and popular feature of the paper some eighteen months since. We are pleased to be able to announce that there seems every prospect of our being able to furnish continued reports of the doings of these three very typical amateurs, whose difficulties and photographic adventures in the past seem to have found so many sympathetic echoes in the minds of their fellow photographers.

Cloud Negatives.

July, up to the moment of writing, has furnished quite unusual opportunities of obtaining striking cloud photographs of masses of cumulus against a deep blue background, more often to be met with in March or April than in one of the hottest months of the year. We hope our readers are taking advantage of the occasion. Cloud negatives may be obtained on almost any kind of plate, but the best for the purpose undoubtedly is a slow or medium speed of orthochromatic used with a five times colour screen or there-

abouts. The commonest mistake in this work is that of under-exposure, the aim being apparently to get a very thin cloud negative which will make the printing in of the clouds very rapid and easy. The consequence is that the clouds themselves are mere masses of white silhouetted against a dark background of blue sky, and have no tone value of their own at all. The exposure should not be so short but that there should be distinct and printable gradation in the white masses, and to secure this the "one-tenth the normal," which is generally given as the correct exposure for sea and sky, should be regarded as the shortest exposure a cloud negative is likely to require. Using a five times screen and very fast orthochromatic plates recently, we found that a twentieth of a second was none too long an exposure to give a cloud negative for full gradation in it; but, of course, this can only be looked upon as a mere hint of what might be wanted.

The Use of Formalin.

Dr. Logan in his article on page 61 this week tells how formalin can be used to make the gelatine on plate or paper quite insoluble. But this is only one use of formalin, and there are many who would be glad to know how to apply it, so as to prevent softening of the film during development or washing, yet without carrying the hardening as far as is dealt with in that article. First let us point out that whenever in photographic formulæ or instructions "formalin" is used reference is made to "commercial formalin." A "ten per cent. formalin" bath therefore means one part of commercial formalin with nine parts of water, "twenty-five per cent. formalin" one part of commercial formalin with three parts of water, and so on. We mention this because commercial formalin is itself sometimes described as "forty per cent. strength," meaning that it is a solution of "formaldehyde" of this concentration. But this description may be ignored. "Ten per cent. formalin," as far as the photographer is concerned, does not mean "ten per cent. formaldehyde," but ten per cent. of commercial formalin. To prevent frilling or softening of the gelatine during the various operations to which plates and bromide papers are exposed it is best to use a five per cent. solution of formalin (half an ounce of formalin as bought diluted to make ten ounces). The best time to apply this is between development and fixing. The developer should be washed out with four or five changes of water at least, and then the formalin applied for five minutes. After rinsing in two or three changes the fixing may then be put in hand. Instead of formalin, a five per cent. solution of alum may be used, and this seems to be more generally preferred by workers in hot climates.

The Fleet in the Thames.

The presence of the fleet in the Thames this week will be an opportunity for a good many amateurs to obtain pictures of some of the finest vessels in the British Navy; and already we have received a number of questions as to whether photography will be permitted on board. We have made enquiries on the subject at the Admiralty, and are informed that, as far as amateurs are concerned, no permission to photograph is required, but that no photography under any circumstances would be permitted below the upper deck, nor in any enclosed position, nor of any of the submarines. Indeed, as far as the public are concerned, the submarines will remain a *terra incognita*, as no one will be admitted to them under any circumstances. Professional and press photographers will be subject to the same restrictions, but will be required to obtain a permit from the Admiral or from the Admiralty, and will have to submit a print of every photograph taken for approval before publication.

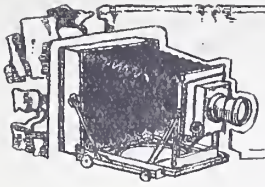
Our Competitions.

May we remind our readers that the last day of the month is the closing date for three of our competitions, one of which (the "Beginners'") is open to all those who have never taken an award in any photographic competition, and the other two open to all photographers without exception. One of these, the "Advanced Workers'," has no set subject; the other, the "Special Subject Competition," is this month for a sunset picture. The closing date is July 31st, and in our next issue we shall publish full particulars of each competition, together with the rules. The "Critical Causerie" each week is based on entries sent in to these competitions, and is intended to help competitors in choosing subjects and dealing with them. Those who intend competing will therefore find it to their advantage to note the advice given therein by our contributor "The Bandit."

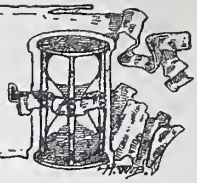
☞ *Special Note for Seaside Holiday-makers.*

NEXT week's issue of "Photography and Focus" will contain several articles on photography of the sea and of shipping. Mr. Fred Wright will deal with the pictorial treatment of shipping subjects in an article entitled "Ships and the Camera." That most popular form of holiday just now, the pleasure cruise, comes in for attention in an article, "Photography and Pleasure Cruising" by "Voyageur." Mr. Evan McGowan gives some useful notes on "Yachting Subjects," and the Critical Causerie will also have shipping pictures as its topic. The leader will discuss the germane topic of lenses for hand cameras, while the illustrations almost without exception will have a marine flavour; in fact it will form

A NAUTICAL NUMBER.



The Week's Meetings.



MONDAY, JULY 19TH.

Walthamstow P.S. Ten Minutes' Papers by Members.
Wallasey A.P.S. "Retouching." W. G. Hughes.
Bradford P.S. "Prints from Negatives taken during 1909."
Southampton C.C. "What Makes a Picture?"
South London P.S. Monthly Competition.
Bowes Park and D.P.S. "Bromoil." G. R. Boyce.

TUESDAY, JULY 20TH.

Hackney P.S. "Should we Specialise?" F. W. Gosling.
Nelson C.C. Negative Evening.

WEDNESDAY, JULY 21ST.

Everton C.C. Members' Evening.
Rugby P.S. Charwelton and Badby.
South Suburban P.S. "From Negative to Block." W. T. Wilkinson.
Worthing C.C. Burpham.

THURSDAY, JULY 22ND.

Tetbury C.C. Nimsfield.
Handsworth P.S. "Use of Exposure Meters."

SATURDAY, JULY 24TH.

Southend-on-Sea P.S. West Tilbury.
Small Heath P.S. Cropthorne.
Walthamstow P.S. Flanders Weir.
Bootle P.S. Matlock.
Coventry P.S. Marston Green.
Wallasey A.P.S. Thurstaston.
Paisley P.S. Castle Douglas, Bothwell.
South Suburban P.S. Bexley.
Asbton-under-Lyne. Lichfield.
South London P.S. Oxted.
Birmingham P.S. Ombersley.
Nelson C.C. Ramble, Thursden.

MONDAY, JULY 26TH.

Erdington P.S. Criticism Evening.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

Thermometer Scales. By H. J. Ralli.

IT is not very frequently that photographers have occasion to use a thermometer in their operations. But as this is sometimes the case, and as there are two thermometer scales in use in this country, the Fahrenheit for ordinary purposes, and the Centigrade employed by scientists, many of our readers may be interested to know how to convert degrees of one scale into those of another rapidly.

When using a thermometer graduated with the Fahrenheit scale, and following a recipe in which the temperature is quoted in degrees Centigrade, the conversion is most simply made as follows: Multiply the Centigrade degrees by 2, deduct one-tenth, and add 32 to the remainder, which gives the degrees Fahrenheit. For example, 100° C., the boiling point of water, is converted into 212° F.

$100 \times 2 = 200$; $200 - 20 = 180$; $180 + 32 = 212$.

The rule for converting from Fahrenheit to Centigrade is as follows: Subtract 32, and multiply the remainder by 5 and divide by 9.

There is a third scale used in Germany called Reaumur. Conversion from Reaumur to Fahrenheit may be made by adding 32 instead of subtracting, and then multiplying by the fraction $\frac{9}{4}$. Example—To reduce 80° R. to F.

$$80 + 32 = 112$$

$$112 \times \frac{9}{4} = \frac{112 \times 9}{4} = 212$$

On the other hand, if it is desired to reduce degrees F. to R., then subtract the 32 and invert the fraction, making it $\frac{4}{9}$. Example—To reduce 212° F. to R.

$$212 - 32 = 180$$

$$180 \times \frac{4}{9} = \frac{180 \times 4}{9} = 80$$

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

SUBSCRIPTION.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
Twelve Months	6	6	Twelve Months	10	10
Six Months	3	3	Six Months ..	5	5
Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

REMITTANCES.—Postal Orders, Cheques, etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

EDITORIAL NOTICES.

ADDRESS.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.



MESSRS. ILLINGWORTH AND CO.'s staff river trip, on the steam launch *The King*, from Richmond to Chertsey, was fixed for Saturday last.

AWARD. At the Rhosllanerchrugog Chair Eisteddfod the winner in the photographic competition was Mr. Maddison, of Rembrandt House, 149, Grange Road, E., Middlesbrough.

"EAST COAST HOLIDAYS" is a title of a well illustrated booklet, which can be obtained free on application to the Superintendent of the Line, G.E.R., Liverpool Street, Station, London, E.C.

PICTURES IN THE PRESS. Referring to our "Special Summer Issue," the "Westminster Gazette" says: "Some of the best pictures one sees are the full page illustrations in such papers as *Photography*."

BROMOIL DEMONSTRATIONS are given every Thursday afternoon, at 3.30, at Messrs. Griffin's premises, Kingsway, London, W.C. Messrs. Griffin specialise in materials of all kinds for both oil printing and bromoil.

FALLOWFIELD'S LISTS for 1909-1910. Nos. 2, 3, and 4, have now been issued, and will be sent free on application. No. 2 deals with plates, papers, and sundries; No. 3 with mounts and albums; and No. 4 with chemicals and preparations.

ROSS BINOCULARS STOLEN. The binoculars 12 × No. 25713, 10 × 15556, 8 × 21115, and 8 × 25246 have been stolen from the Tella Camera Co., 63, High Holborn, London, W.C. Anyone to whom any of these are offered for sale is asked to communicate with the Tella Co.

KINEMATOGRAPHY IN COLOUR. Mr. G. Albert Smith gave an exhibition of his apparatus recently before their Majesties the King and Queen at Knowsley. The King cordially congratulated Mr. Smith on the exhibition, and the Queen also made complimentary references to it.

THE BRUSSELS EXHIBITION. Just as we go to press we hear that a meeting of the photographic trade is to be held at 4 p.m., on the 22nd inst., at the Platinotype Co., 22, Bloomsbury Street, W.C., to see what steps should be taken to secure an adequate representation of British Photographic Industries at the exhibition.

A CAMERA PRICE LIST. The Camera Construction Co., of Eagle Works, Durham Grove, Hackney, London, N.E., has issued a comprehensive and well illustrated price list of the various cameras, tripods, and accessories which it manufactures. These include the well-known Condor, Eaglo, and Falcon outfits, and several excellent designs of studio cameras. The list is one to get before buying a camera.

CROYDON CAMERA CLUB. Mr. H. M. Bennett having resigned, the honorary secretary is now Mr. W. H. Claypoole, of 63, Elmwood Road, West Croydon.

THE STOKE-ON-TRENT Photographic Society, formed early this year, is making good progress. The honorary secretary, who will supply all particulars, is Mr. J. Henry Roe, of 14, Edward Street, Stoke-on-Trent.

AN OFFER. A Dublin firm of opticians not only gives free instruction in photography, but offers to develop free of charge all the exposures made by a purchaser of apparatus from them within one month of the date of purchase.

EASTMAN KODAK CO. OF NEW JERSEY. The directors have declared an extra dividend of 5% upon the common stock of the company, payable September 1st, 1909, to stockholders of record at the close of business on July 31st. The usual quarterly dividends will be paid on October 1st.

THE CRIPPLEGATE PHOTOGRAPHIC SOCIETY is in future to be known as "The City of London and Cripplegate Photographic Society." The honorary secretary is Mr. H. S. Cuming, of 234, North End Road, West Kensington, W., and the annual subscription 7s. 6d. There is no entrance fee.

MODERN PHOTOGRAPHY FOR AMATEURS is the title of a well-known handbook published by Mr. L. Upcott Gill, of Bazaar Buildings, Drury Lane, London, W.C. It has just reached its sixth edition, having been revised and partly re-written, and is thus quite up-to-date. Its price is a shilling nett, at which it furnishes one of the best of the beginners' guides on the subject.

A FRACAS took place at the Paddington Borough Council recently, because a member persisted in "taking snap shots in the chamber." Trying to do so would probably be more correct. The Mayor called upon him to desist, and, as he declined, he was removed by force. Councillors are hardly elected to take photographs during the hours of business; but from the point of view of their constituents, there are many more harmful occupations which are indulged in at council meetings.

TRIMMING AND MOUNTING. Lecturing on this subject at the South London Photographic Society, Mr. J. A. Lovegrove advised his hearers to hold the trimming knife leaning a little outwards, so as to undercut the print slightly, and thus avoid white edges. Mounts should be chosen by daylight, as the tone of many is quite altered in artificial light. It should be remembered that the glass of framed pictures slightly degrades the tones of both print and mount. Black or white mounts can seldom be used to advantage, and vivid or crude colours in the mount should always be avoided. Light mounts are best for delicate prints, and deep toned mounts for stronger prints and those of sombre hue. The colour of the mount should harmonise with that of the print.

ALDIS TRIO LENSES. In future the Aldis Trio lens will have a black band on the front, to show the user at a glance that it is in position, without referring to the engraving.

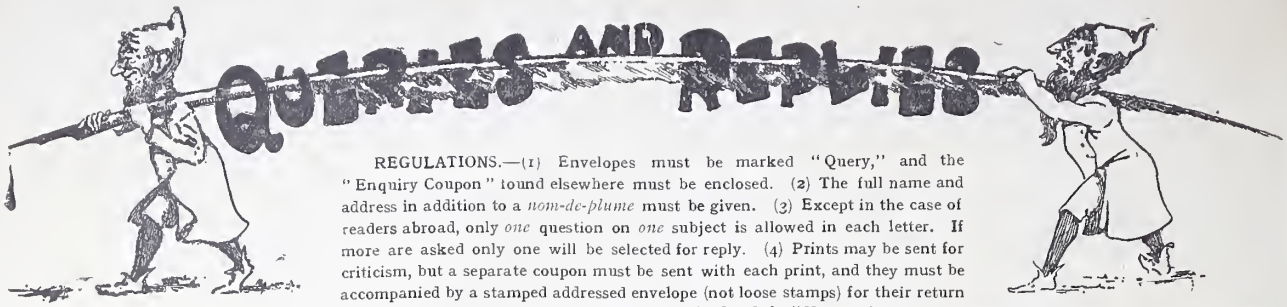
SOUND ADVICE. Mr. Sutcliffe in the "Yorkshire Post" writes: "The beginner who wishes to enlarge from his negatives should be cautioned not to intensify them at all, for it is possible to make fine enlargements from the most fairy-like originals, while it is almost impossible to get a good enlargement from a strong negative—at any rate, not a direct one."

PIERRE LOTI AND THE CAMERA. According to a statement that has been going the round of the papers, Pierre Loti owes the fact that he is a writer at all to the camera. He was an enthusiastic amateur, and sent in a number of photographs he had taken to the editor of an illustrated paper. In reply he got a request to write something to appear with them, and this "something" decided his career. The first contribution to the press made by Lord Northcliffe, it is stated, was on a photographic topic.

PLATES FOR HOLIDAY WORK. The brand of plates taken away on holiday (writes "Camera" in the "Glasgow Evening Times") is a matter deserving consideration. It is unwise to take an unfamiliar plate or a different sort from that in use. Sometimes when away the usual kind cannot be got, and a new brand has to be purchased of which the speed is unknown, and which may have become stale. It is best, even when taking the usual kind of plate, to try one or two out of a box, and if they prove right to get all of that particular batch.

PHOTOGRAPHY AT FOUNTAINS. Mr. E. Turner writes: "The charge of a shilling admits to the grounds and ruins of Fountains. Cycles are stored at an extra charge of 2d. The dark room is in charge of one of the gardeners, who is generally near at hand. There is no crypt or cloister at Fountains. The photograph is of the Cellarium. The Minster authorities have recently imposed a charge, I believe, of 2s. 6d. a day for photographing the interior. I have always found the attendants at Fountains most obliging in their endeavours to assist camera users. Those after details would do well to consult the head man."

CANTERBURY CAMERA CLUB'S EXHIBITION. In the open classes a silver plaque was awarded to A. H. Dodman, and bronze plaques to C. H. Hewitt, J. Cawlwood, Mr. and Mrs. Bracewell, A. W. Ward, Mrs. E. Peake, E. S. Neame, J. M. Whitehead, G. J. T. Walford, and G. A. Booth. The following were highly commended: R. Bullingham, B. Ward-Thompson, E. Burton, H. P. Wight, S. E. Ward, and S. A. Pitcher. A. Bracewell was "very highly commended," and C. Friend Smith, S. A. Chappell, F. W. Beken (2), F. A. Tinker, J. Dunning, and E. G. Barlow were commended. G. A. Booth and A. Taylor were "specially commended." Four different degrees of "commendation" surely constitute a record in awards.



REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

S.F. (Daventry).—The letter has been addressed and posted.

O.U.F. (Penrith).—See the article on the subject which we print this week.

H. KING (Harrow Road.—Old negative glass has no commercial value.

TYNE (Bedlington).—We regret we have no information on the subject available.

J.J.R.K. (Plymouth).—The makers are Kodak, Ltd., Clerkenwell Road, London, E.C.

G. RICHARNSON (Minehead).—The "Vesta," by Adams and Co., 24, Charing Cross Road, London, W.C., should suit you.

S. BOYCE (Hythe).—There is no "difficulty of focussing" with a pinhole, the picture is sharp at any extension you like to use.

PEGASUS (Chelsea).—Occasionally advertisements appear in our columns for such negatives; but there is no market for them in the ordinary course.

D. BABB (Mile End Road).—The sheaths have got bent we suspect, or the changing would be smooth enough. It would be best to get a new set from the makers.

D. WALDER (Oxted).—Thanks for your letter. We thought the subject a timely one, and are only sorry we did not refer to it sooner to prevent your own trouble.

JUNO (Oundle).—It is quite impossible to answer your questions definitely. Your best plan will he to get a "Bee Meter," read its instructions carefully and learn to use it.

H. BOWES (Shepherd's Bush).—The name is quite unknown to us, and is no doubt that of some seller, not maker. Any of the big dealers would no doubt supply extras.

YORK (Marske-by-the-Sea).—The meter should be turned neither towards the camera nor away from it, but towards the principal source of the light which falls on the subject.

A. FREEMAN (Church End).—No one person can be put down as the "inventor of the Kinematograph." Birt Acres, Edison, Friese Greene, and the Lumieres all bad a hand in it.

T. STUDD (Azores).—There is no lens which will do what you want; tbe nearest to your requirements would seem to be a long focus portrait lens. You might pick up one second-hand.

ANNO DOMINI (Oldham).—Eitber can be used, but in any case it would be necessary to stop down, and with either there would be distortion when straight lines fell near the edges of the plate

MISS MCCARTHY (Riverstown).—Your letter and enclosure to hand. We are afraid you ignored our advice to study the magazine to which the pbotographs are sent, or you would have known the conditions under which they accept prints.

WIDE ANGLE (Dorking).—Anything that reduces the focus from 8½ to 5 inches increases the rapidity of tbe lens with each stop in the proportion of approximately 3 to 1. Consequently exposures will be reduced to one-third of what they were before.

A.E.K. (Islington).—We should try bleaching tbem in a solution composed of 10 grains of potassium bichromate and 5 minims of hydrochloric acid to each ounce of water, well washing, until all the bichromate stain has vanished, and then redeveloping with some non-staining developer such as that originally used. If this will not remove the stains we fear nothing will.

PRINTER (Gosforth).—The negative has been sent back. The curved line is part of the edge of a large flare spot, undoubtedly. Of course it ought not to be there; but it is not a recent development of the lens, but has only been made manifest by the very trying conditions under wbich this particular negative was made; so tbat in the circumstances it would be best to keep it.

B. K. TANDAU (Lucknow).—Use tbe same plates that you use for the other apparatus you have, and proportionate exposures. To judge from your letter you would do well to get "The Hand Camera," by Wastell and Bayley, and read it carefully. Although we have answered your enquiries, we suspect that you want far more than we can tell you in this column, but which you will find at lengtb in that book.

REFLEX (Reading).—No. 2 should answer your purpose.

G. MULLER (London, N.).—Application must be made to the L.C.C., Spring Gardens, S.W.

SIGMA (Thornton Heath).—It is bardly a matter for our columns, being too strictly local in its interest. Thanks all the same.

E.F.R. (Parliament Street).—Both reduction and intensification may be carried out in any light, natural or artificial, strong or weak.

T. ROBINSON (Clifton).—Second-haud you ought to be able, by watcbing our small advertisement columns, to pick one up for five pounds or thereabouts.

VOIGHTLANDER (Stow-in-the-Wold).—There is no satisfactory way of doing what you want. You must use gaslight or bromide paper if you want that effect.

CECIL WHITE (Derby).—We have nothing to add to the two pages 376, May 11tb, and 398, May 18th, on this subject, which answer your letter far more fully tha we could do in this column.

JUSTICE (New Barnet).—Unless both plates are properly exposed no reliable conclusion whatever can be drawn as to their speed; and even then a camera test is very apt to mislead. We see no reason to suppose that the makers' figures are incorrect.

REFLEX (Swansea).—The method of finding the development factor is given in the "Watkins Manual," and is quite within any amateur's power. We do not know the factor, and could only ascertain it by experiment, which you can surely do for yourself.

J.V.B. (Manchester).—If you have a photographic friend to advise you we should show it to him. If not, it would he very risky to purchase it. Second-hand apparatus should only be bought by those who are in a position to judge of its condition and value.

HEW (Hammersmith).—The groups would be *eligible*, but awards are given for single photographs rather than fancy things of this kind; and we should advise you not to throw away your cbances by endeavouring to attacb some other interest to the prints—a mistake which many competitors make.

R.W. (Dulwicb).—Avery's backing does not stain the plates. Why do you want to wipe off the backing at all until after the plates are fixed? None of the commercial backings, so far as our experience goes, heve any staining action whatever upon the film. If your films are stained, it is not due to the backing.

H. D. YATES (Sydney, N.S.W.).—A 5in. Aldis would be the lens to get we think, and we can certainly recommend it. We are glad to hear that you have found both the paper and tbe books useful. We know we have many readers in Australia, and, as you have noted, we get enquiries from all the world over.

SIEGE HOUSE (Colchester).—The negative is very badly fogged, so badly in fact that there is almost as much deposit on the unexposed as on the exposed parts. Whether it was correctly exposed or not it is too fogged to say. Either developer or film or dark room light is at fault. Nothing can be done to it to improve it. We have returned it.

NEW READER WALES (Lampeter).—You are quite correct; the lower figures are the F numbers of stops. The upper are the exposures. "B" means "bulb," and as long as you press the bulb or release, the shutter if set to B will remain open. "T" means "time," and if set to this one pressure of the release will open the shutter and a second will close it.

BEGINNER (Hyde Park).—The acid presumably affected the silver cyanide solution, and should have been thoroughly washed out beforeband; but we are only surprised tbat the plates were not bare glass when they reached that stage. In your anxiety to do right you are overdoing everything. Fixing should take ten to fifteen minutes, no more nor less; and washing two or three hours *at the most*. The gelatine is being kept wet, and prone to injury, far too long witb your present treatment. There is no intensifier that complies with your requirement; but if you put a negative face upwards under the tap for from twenty to thirty minutes, letting a gentle stream run on it all the time, it will be ready to intensify.

W. R. GEORGE (Maryland Point).—The factor is 12 or thereabouts.

T.Y.S. (Andover).—Tbe answer is in tbe negative. See rules above.

E.D.S. (Ipswich).—Tbere is, unfortunately, no remedy. You had better send it back.

MAURETANIA (Worsley).—You have no doubt before this seen tbe note on page 27 of our current issue.

C. HAMILTON (Hornsey).—No permit is necessary. Bonn Konigswinter, Andernach, Cocbem, Zell, Berncastel.

AGFA (Durbam).—Tbere is no reason why it should not be used; we may say we have found it in every way satisfactory.

BEGINNER (Darlington).—You could bardly do better than employ the formula given with tbe plates which you are using.

QUEX (Kilburn Square).—Fallowfield, 146, Cbaring Cross Road, London, W.C., would, we expect, be able to supply you.

IAGO (Oswestry).—"The Hand Camera," by Wastell and Bayley, price 1s. nett, or post free from our publishers 1s. 2d., is tbe most suitable.

H.T.K. (Bilton).—It would probably be better to do so; but we bave not noticed any fading in tbose wbich have been exposed for a long time to light.

C.W. (Halifax).—We have not got the information; nor, if we had, sbould we feel justified in giving it for such a purpose. How would you like to be treated in that way?

INTERNOS (Glasgow).—Yes. Any spectacle lens magnifying slightly would answer tbe purpose, but you would have to stop down the R.R. lens a good deal, we expect, to get it sharp.

COLLIER (Wakefield). — Any dealer would fit your camera witb a better lens, but we doubt if it would not be more satisfactory to wait until you are in a position to get a better instrument altogetber.

PYRO (Northwich).—You could not do better than use the formula given by the makers of the plates you use. If this is not wbat you want, if you will explain precisely what your difficulty is, we will try to help you.

N. P. SAMPAT (Karanja, India).—The sensitiser keeps well in a stoppered bottle in the dark. The ammonia must be used, but there is no reason why any of it should be inhaled. It is all neutralised before the solution is used.

J. A. COURTS (Cupar).—It would be more a case of general opacity witb anything but the red, we think. The red would be best, but easily fades. Buff would be our selection. We are sorry we cannot make any exception to our rule as to replying.

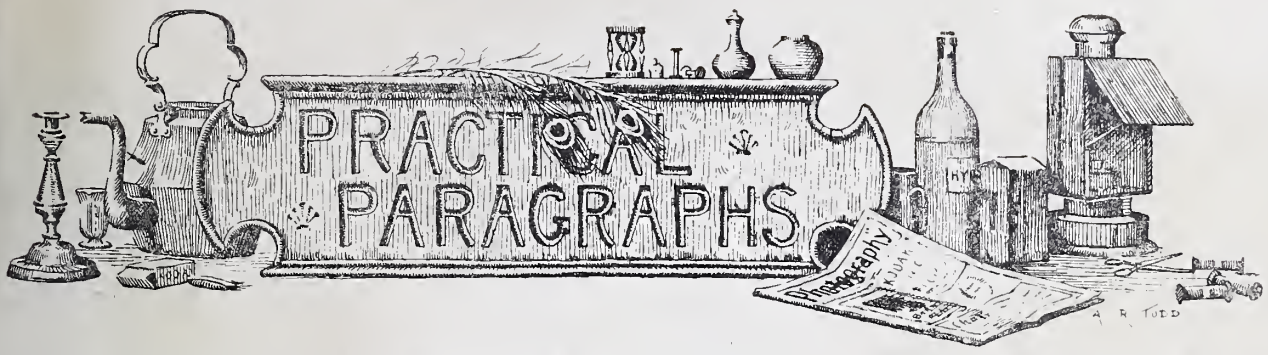
D.D. (St. Petersburg).—It is best to use it between development and fixing; but it should not be employed unless absolutely necessary. One second at f/6.8 is the equivalent of (approximately) 1.4, 2.8, 5.6, and 11.2 seconds with tbe other stops named.

REPTONIAN (Burton).—It is, as you suppose, a very common occurrence, and is due to excessive development by an unsafe dark room light. If you keep the dish covered during development, and do not carry on that operation too long, it will not occur again.

DUFFER (Ventnor).—It is probably due to reflections from the bellows of the camera. We should advise you to give the interior a good coat of dead black paint, and see that the interior of the hood of the lens is not bright. An extended bood will also cure it. We bave returned the print.

D. B. SMITH (Enfield).—Had we beeu able to give the information you may be quite sure we should have done so. We endeavour to make every article in *Photography and Focus* as complete as possible, but there are some things which must be left to the pbotographer, and tbis was one of them

E. F. GORHAM (Munich).—Copies are *eligible*; but we cannot suppose that they could take an award in a competition where pictorial pbotography is the criterion. We often get asked this and similar questions, whicb tbe querist could surely answer for himself by looking at tbe reproductions of the successful pictures.



PHOTOGRAPHING FLOWERS.

A writer in the "Bulletin of Photography" states that the most effective background for flowers is "a smooth, dull surface, terra cotta paper of the proper depth to give relief to the flowers." Flashlight, contrary to what might reasonably be expected, he found gave charming results as an illuminant for vases of flowers, and seemed to some extent to help in the colour rendering, especially with the red.

* * *

PHOTOGRAPHING OLD DOCUMENTS.

One of the tasks which the photographer is called upon to perform at times is the photography of some old parchment or paper document, which has yellowed by time until when photographed in the ordinary way the paper comes out almost as black as the ink. Common-sense indicates then that this is a case for an iso plate and a light filter, but even if these are used it may be found that the background of parchment or paper does not appear as light as wished. "Over-correction," as the scientific worker would call it, is what is wanted. I have lately had a whole series of documents to photograph, in which the parchment was quite brown, and with ordinary photography impossible; but by using in the lens a cell which contained a saturated solution of potassium bichromate, and an orthochromatic (not a red sensitive plate), it was possible to get negatives in which most of the yellowness had gone, and the engrossing on the skin stood out well in black. To do this, the plates had to be very fully exposed and fully developed. Metol-hydrokinone was the developer used, and, after fixing, each plate was slightly reduced with ferricyanide and hypo.—T. H.

* * *

SINGLE TRANSFER GUM PRINTS.

The method of Meier, which Dr. Power quotes in his digest in "Camera Craft," is perhaps best described as the single transfer carbon process applied to a gum print. The following is the method in question. An even and rather thick layer of gum-bichromate mixture is spread on a plate of ground glass, and when dry, the sensitive stratum is varnished with thin negative varnish. The varnish being dry, the varnished sensitive stratum is exposed under a negative. The paper, to which the exposed film is to be transferred for development, is floated on a warm solution of gelatine (one part of gelatine to eight or nine parts of water) and the gelatinised paper is laid down in contact with the exposed surface, after which contact is established by means of a squeegee. When the paper is dry, the plate paper side downwards, is placed in a dish of cold water, and after a short time the paper can be stripped off, the plate being still in the water, but now with the paper side upwards. After stripping, the image is developed in cold water quite in the ordinary manner. It may be remarked that the layer of pigmented and bichromated gelatine spread on the ground-glass plate in the first instance should be so thick as to appear quite opaque, otherwise there may be a failure to separate in the cold water. Further, the layer of varnish must be extremely thin, its function being to prevent immediate softening of the gum when the gelatinised paper is laid in position, but it must not be so thick as to prevent the cold water slowly penetrating to the layer of bichromated gum. Ordinary negative varnish diluted with twice its volume of alcohol will serve, or a solution of one part of sandarac in fourteen to eighteen parts of alcohol may be used.

EVEN ILLUMINATION IN TELE-PHOTOGRAPHY.

The user of a telephotographic lens may find at times that the illumination of his picture falls off very much towards the edges. This must not be confused with the limitation of the field, which one often experiences. But within the area over which the lens is forming an image the margins are very poorly lit in comparison with the centre of the field. It may not be generally known that this can be remedied to a very large extent merely by stopping down the positive lens.

* * *

URANIUM TONING FOR BROMIDE PRINTS.

The following formula for a uranium toning bath for bromide and for gaslight prints is said to be better than that usually given in the textbooks. Four stock solutions are required, and are made up as follows:

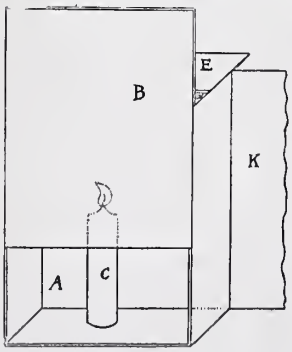
A.—Lead nitrate	... ...	8 grains
Potassium ferricyanide	... ...	30 ,,
Distilled water	... ...	1 ounce
B.—Uranium nitrate	... ...	5 grains
Water	... ...	1 ounce
C.—Citric acid	... ...	100 grains
Water	... ...	1 ounce
D.—Ammonium chloride	... ...	5 grains
Water	... ...	1 ounce

To make up the actual toning bath, one dram of A, half an ounce of B, half an ounce of C, and fifty minims of D are mixed together, and the print immersed in the liquid until it takes on the desired tone of red. By omitting D, the colour, it is said, becomes more of a brown than a red.

* * *

AN IMPROMPTU DARKROOM LANTERN

Occasionally, writes Mr. Sweyer in the "Photo-Era," through some accident to the regular darkroom lantern, or through the necessity of developing while out of reach of a properly equipped darkroom, some means of illumination must be improvised. Such a temporary lantern may be made from an empty cigar box in about five minutes. The bottom of the box (not the hinged lid) is removed and nailed on again in the position shown at B. One end is removed, and replaced as at E. A short French nail is driven through the centre of the opposite end of the box, to serve as a seat for the candle C. The lamp is finished by tacking two or more layers of orange paper or ruby fabric over the aperture A, bringing the paper well round to the sides and bottom of the box to prevent light leakage from the cracks around the edges. The hinged lid K is used as a door, making lighting and trimming convenient. It may be fastened with a nail or with a piece of wire. It is well to reinforce the hinge by gluing on a strip of cloth if the lamp is to be in use more than once or twice. The lamp is safe, for the projecting edges of B and E form a light shield for the ventilation orifice and the crack at the top of the hinged cover respectively. Moreover, since the flame of the candle is above A, only reflected and transmitted light reaches the plate.



Photography for Decorative Purposes.

By M. Earle. Special to "Photography & Focus."

The application of Photographs to the decoration of furniture, cards, menus, book covers, and other purposes, is a fresh field for the amateur who has wearied of the production of simple negatives and prints.



SOME years ago I experienced a feeling which, sooner or later, I suppose, comes to almost every amateur photographer—a feeling of dissatisfaction, of aimlessness. What was the good of it all. I was making negatives and prints, negatives and prints, negatives and prints, but the prints just accumulated, or were given away, or destroyed; and I began to feel that the possibilities of my hobby were exhausted. It was when this feeling was at its worst that I came across an article advocating a greater use of photography for decorative purposes, and being struck by something in it, I determined to try my hand in the direction it opened up.

My first attempt was of a simple character. A dark oak overmantel with a mirror in the centre of it had taken my fancy, and I enquired its cost with and without the mirror. The latter made a difference of about half the price, and the overmantel without it was purchased. I forthwith set to work to hunt out a suitable negative, and to make a bromide enlargement to occupy the place of the mirror. The enlargement was made, and toned to a sepia. I remember it was the largest I had ever made up to that time, and it seemed strangely coarse when it was mounted on a card. But when in place this was quite unnoticed.

The next stage was a more ambitious one, and took the form of the decoration in the same way of the three doors of a bow-window-shaped cabinet, which was enamelled white, and formed part of the furniture of a bedroom. It was more elaborate, because I had determined not to depend upon my stock of negatives for the subjects, but to make negatives for the special work in hand, and, as far as possible, to fit the subject to the shape of the spaces to be occupied. Of course, in real decorative photography, this would always be done, as it is possible in this way to get a sense of design and a feeling of appropriateness about the design which can be obtained in no other fashion. The central door, which was almost square in shape, was accordingly measured up, and a space of exactly the same proportions was marked out in pencil on the ground glass of the camera.

The subject selected was a flowerpot of geranium, not the most suitable, perhaps, but it had the advantage of being a very fair fit in the space provided, and a single bloom on its long stalk, with a leaf beneath, provided a very suitable subject for the two side doors, where the picture had to be a long narrow upright one. I was tempted at first to make these two pictures alike, but finally decided that, although the subject should be similar in each case, it should not be identical.

Headings and Initials.

The success of the second experiment urged me on to try other applications of photographic decoration. It is quite remarkable to find, when once the thing is taken up, how numerous they are. One of them is to be seen very frequently illustrated in the pages of *Photography and Focus*. I refer to the use of photographs in decorative headings and initials. This, of course, involves the use of drawing, and one cannot hope to succeed by means of pure photography, but when the photographer cannot rely on himself for pen and ink work, he can often find that the co-operation of a friend who is a draughtsman will enable them as a "firm" to do what neither could do singly.

One of the first things to learn in this work is the requirements of the particular magazine in which the work is to be used.

When I first sent in some of my work it came back to me with a courteous note from the editor of the paper to say that while he liked it, he could not use it as it did not leave sufficient room for the type. An examination of the paper showed that all the initial letters allowed a certain length of line of type to be used with them, and mine would not; while it could not be reduced more, as it was designed to go right across the page. Another mistake often made by amateurs who are designing initial letters for the first time is to put the letter too low down on the design, or else to put it too far in, and so too far from the rest of the word, of which it is the commencement. One has to remember, also, that the photograph when used for an initial will be very much reduced in size, and a great deal of its detail will therefore be lost, so that the subject selected must be one which is of a simple kind, one which "tells its story" even when it is on the smallest scale.

How the Dinner Menus were Decorated.

A form of decorative photography which has produced some very charming results is the making of Christmas and other greeting cards. This has been dealt with in *Photography and Focus* by writers who are more familiar with that application than myself, and so need not be further referred to for the moment. A series of dinner menus, which I made last winter, however, may be worth mention, as the process was not the ordinary one. A little still life group, kept as simple as possible on account of the reduction, was made right down in one corner of a half-plate. It was taken against a white background, or rather some distance in front of a white background, and so it was easy to vignette it on to one corner of a piece of platinum paper, leaving the whole of the rest white. The menu was printed on to the paper from a separate negative with a mask, so that the lettering appeared on a slightly tinted patch on the menu.

The still life group was brush-vignetted by means of the glycerine process, the whole of the paper being covered with glycerine, the wording developed, and the development of the vignette made the last operation. It took a little trouble and designing, though I think the result in the end was one that was worth it, but it would not be suitable where there were many to be done, as each print required separate treatment.

Subjects for Decorative Photographs.

As far as the subjects for decorative photography are concerned, these are almost always those which come under

the head of still life. Flowers are those which the photographer naturally thinks of first; but flowers, so far from exhausting the list, only just commence it. Fruit and vegetables are not to be despised as subjects, especially sprays or bunches of fruit; hanging cucumbers, for example, form an excellent subject, although the picked vegetable is not by any means so easy to deal with photographically. Leaves, insects, hoar frost designs, spiders' webs, crystals, are just a few of the things which may be pressed into service; skeleton leaves and grasses are also useful. Landscapes, architecture, and portraits do not lend themselves so well, though an occasion sometimes arises when a portrait or a figure study is the most appropriate subject.

The arrangement is the real trouble; the photographing itself being comparatively easy, as the conditions are so much under control, and the work being done at home, can be quickly and easily done over again if the first attempt is not quite a success. The arrangement will be found to take more and more time, as the photographer progresses, not that he becomes less skilful, but that he rapidly gets more critical. The mere production of a pleasant group of flowers or leaves is not by any means sufficient. It must be decorative. That is to say, the disposition of the lights and shades must be a pleasing one, quite aside from what they represent. For this reason the general principles of decoration, apart from photography, should be studied, and an endeavour made to put those principles into practice.

The technical details do not call for much remark. All my own work has been done with an old-fashioned square bellows landscape camera and R.R. lens, half-plate size, except on one or two occasions when I have been able to use my hand camera negatives. The still life subjects are all taken indoors, the camera being close to the window and just to one side of it, and the subject well inside the room, so that the lens is pointing almost straight into the room. The backgrounds are of the ordinary flatted oil type, of which I have two. I found it difficult to use card or paper, because I could not get sheets that were large enough to allow the background to be some distance behind the subject. If it is not, then one gets shadows on it, and troubles arise in that way.



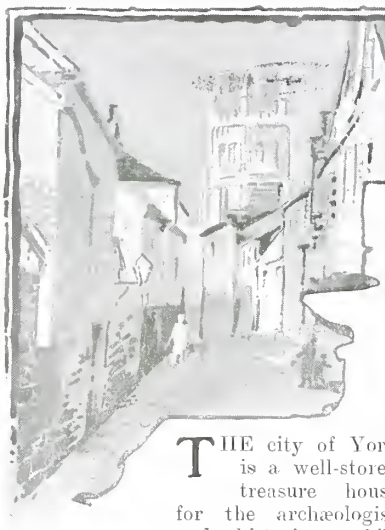
A NOVEMBER'S MORNING (CANONGATE, EDINBURGH). BY A. W. WALBURN.
Awarded a Certificate in the Advanced Workers' Competition.

A Dodge to Secure a Perfectly White Background

A hint that may be useful is a method of getting a perfectly white background without blocking out—a very necessary thing at times in decorative work. A sheet is used some four feet behind the subject, and after the correct exposure for the subject has been given, behind it but well in front of the sheet a couple of feet of magnesium wire is burnt. A card must be used to prevent the light of the wire from reaching either the subject or the lens, and it must be burned at the side, of course, and not in the direct line. This extra illumination of the background will be found to make it develop up quite dark and print out perfectly white. The plates for this must be backed.

Many of the subjects with which one would like to deal can only be arranged satisfactorily on a sheet of glass placed horizontally, and a camera stand capable of taking the camera so that its lens points directly downwards is an advantage, in fact for some work a necessity.

I have only been able to touch upon a very large subject in this paper, but I hope I have written enough to show some of the readers of *Photography and Focus* that if they feel *blasé* and "played out" as far as the production of prints in the ordinary way is concerned, there are fresh fields into which they can ride their hobby with a great deal of pleasure both to themselves and to others.

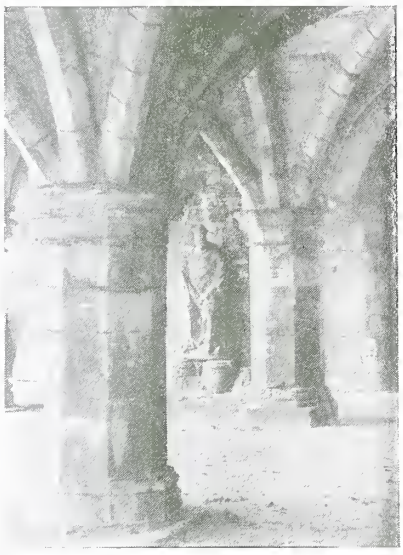


RAMBLES IN TOWN.

THE CATHEDRAL CITY OF YORK.

THE city of York is a well-stored treasure house for the archæologist and historian, while to the devotee of the camera its riches are unsurpassed. It is one of the few remaining places in the country which still preserves a quaint old-world air.

The premier place in point of interest is, of course, taken by the Minster,



St. Leonard's Hospital, York.

which in its wealth of work for the camera might well have an article to itself. The stone screen by which the choir is entered from the nave, the chapter house, and the great east window are only a few of its glories. The exterior presents a good many points of interest and beauty, and can be photographed freely; for the interior a charge of half a crown is made.

Quite near the Minster is St. William's College, which can be visited for an entrance fee (to courtyard and college) of sixpence. This was founded by the Nevilles in the fifteenth century for the Chantrey Priests of the Cathedral. The college was formerly let out in rooms and neglected, but is now being restored and preserved. The courtyard is much photographed.



St. William's College, York.

In the opposite direction from the Minster lies what is left of St. Mary's Abbey (in the Decorated style). The entrance fee of one shilling allows the amateur to photograph the ruins. Here in St. Leonard's Hospital, just inside the entrance gate on the right, we have a relic of very early times, for the building was erected in 937 by King Athelstan, being used for the relief of the poor, both sick and well. A little further on is the Multangular Tower, with nine obtuse angles. The picturesque ruins of the Abbey are inhabited by flocks of pigeons, which with the children feeding them provide work for the camera. The Hospitium in the grounds contains a large collection of Roman pavement, utensils, and jewellery. The Royal Manor, to the right of the Abbey, is now a home for the blind.

Leaving Museum Gardens and passing down the street to Lendal Bridge, and looking over this to the left, the back of the fifteenth century Guildhall can be seen. This is open to the public. Then Clifford's Tower should be seen, standing on a high mound believed to have been raised by the Romans. With a special permit—as this is Government property, and in the hands of the War Office—one can get out on the top of the tower, whence fine views of York and its surroundings are to be obtained. It was on the site of Clifford's Tower that the original keep, erected by William the Conqueror, stood; and it was here that the great massacre of Jews in the reign of Richard Cœur de Lion took place.

The Merchants' Hall in Fossgate is another old building (fourteenth century) which should not be missed, while the old streets, the Shambles being the most notable and picturesque, certainly claim attention. Petergate and Jubbergate (the old Jewish quarter) have many old buildings and points of interest.

No sketch of York would be complete without reference to the city walls, which are in good preservation, and form nearly a complete circuit. The walk round them gives some charming views of the city. Micklegate Bar



Turret on the Walls, York.

is the western entrance, and is probably the oldest. Walmgate Bar is the southern gate, and still possesses its barbican and portcullis. Monkgate, or Monk Bar, also has a portcullis. This was the eastern gate of the city, while Bootham Bar was its northern entrance. The only postern left is the Fishergate.



Micklegate Bar York.

The river adds yet one more attraction to York, and with the old barges and the swans is particularly picturesque. This month a pageant is to be held, for which the fine old city should provide a magnificent setting.

HOLIDAY INFORMATION.

Llanidloes (Montgomeryshire).

The ancient borderland borough of Llanidloes in Montgomery lies at the foot of Plynlimmon, on the Severn.

Places of Interest.

River scenery.—Severn, Wye, and Clywedog. Old bridges, rustic bridges, waterfalls, and moorland springs (bogs).

Woodland.—2,000 acres in the vicinity, avenues of limes and beeches, oaks, larches, birches, etc.

Lakes.—Llyn Ebyr (50 acres). Marsh's Pool (17 acres), and Llangurig Lake (8 acres).

Buildings.—Old Market Hall (timber on wooden legs, Elizabethan period), ancient farmhouses, and ancient abbey church.

Panorama.—View from the golf links, from Penrhiw, from the Gorn, and from the heights of and around Plynlimmon.

Harrogate.

Harrogate, on the Yorkshire Moors, is one of the great inland watering places of England.

Places of Interest.

Birk Crag (1 mile), a romantic glen with many interesting picturesque views.

Crimple Viaduct (1½ miles).—Thirty-one arches, each 52 feet in span.

Harewood (8 miles) has an old castle and church (ancient tombs).

Haverah Park (4 miles), with moorland scenery, John-o'-Gaunt's Castle, Little Almes Cliff, etc.

Knaresborough (3 miles), on the River Nidd, is a perfect El Dorado for the amateur photographer. There is much fine river scenery, a bridge, the famous dropping well, ruins of a castle, etc.

Plumpton (3½ miles).—Large rocks, 23 acres pleasure grounds, etc.

Studley and Fountains Abbey are fourteen and Ripon twelve miles from Harrogate. (See *Photography and Focus*, July 13th, 1909, page 34).

Dealers (dark room), Wilsons, Ltd., West Park and James Street, Harrogate.

Paignton.

Paignton, South Devon, is situated in the centre of the crescent-shaped coast of Torbay, four hours by express from London, and is surrounded by some of the most picturesque and romantic scenery of the county, consisting of river, moor, woodland, and coast. The parish church, dating from the twelfth century, has a fine Norman doorway.

Places of Interest.

Compton Castle (3½ miles). One of the best examples of a fortified house.

Berry Pomeroy Castle (4 miles). An exceedingly picturesque ruin, surrounded by fine woods. Near by is Berry Pomeroy Church, containing a fine screen.

The river Dart has some of the finest river scenery in England, and can be reached at several points from Paignton. One of the best is Dittisham, a quaint village on the banks.

Cockington Lanes and Forge (3 miles). Here are typical Devon lanes, very popular with artists.

Dartmoor, with moorland, woodland, and ravine scenery, is reached by rail and coach.

Torquay (3 miles). The walks round the coast at Torquay are very fine, with delightful colouring in the rocks and soil. One of the best walks is the "Bishop's Walk," ending at one end in Anstey's Cove, a favourite spot with visitors.

Dealer, Dellers, Ltd. (darkroom), Palace Avenue, Paignton.

Fakenham.

Fakenham is an old market town in Norfolk, with an interesting church and river scenery.

Places of Interest.

Walsingham (5 miles) has monastic ruins. There is a fine font in the church.

East Barsham Hall (3 miles) is a magnificent example of Tudor brickwork.

Binham (8 miles) has the ruins of a priory. Burnham (8 miles), Nelson's birthplace.

Castle Acre (12 miles), with ruins of the Norman castle and priory.

Coast villages (10 miles and upwards), with fishing and shipping scenes.

Dealer (dark room), D. Davison, Bridge Street, Fakenham.

FORMULÆ.

A Platinum Toning Bath.

A fine colour can be obtained on matt surface P.O.P. prints by toning them in

Potassium chloroplatinite	2 grains
Citric acid	5 ,,
Sodium chloride ...	8 ,,
Water	10 ounces

They must be well washed after toning.

An Effective Clearing Solution.

One of the best clearing solutions for negatives is made as follows:

Thiocarbamide ...	30 grains
Citric acid	15 ,,
Water	5 ounces

The negative, after fixing and washing, is placed in this solution until all stain is removed, and then is washed and dried.

A Developer for Bromide Paper.

Metol	50 grains
Hydrokinone	15 ,,
Sodium sulphite ...	1 ounce
Sodium carbonate ...	1 ,,
Potassium bromide ...	3 ounces
Water	20 ,,

Blue Print Paper.

The simplest formula for blue print paper is the following, which has the advantage that the solutions will keep before mixing:

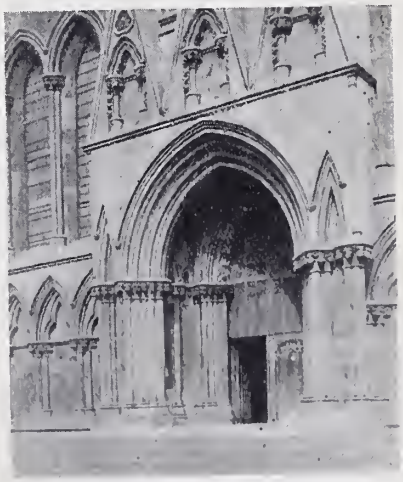
A.

Iron ammonio citrate ...	2 ounces
Distilled water	4 ,,

B.

Potassium ferricyanide ...	1½ ounces
Distilled water	4 ,,

Some well-sized paper being selected, an ounce of A, an ounce of B, and two



South Porch, York Minster.

ounces of water are mixed, filtered through a tuft of cotton-wool pushed into a funnel, and brushed evenly over the paper, which is then dried in the dark. After being printed the paper merely requires washing in water.

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

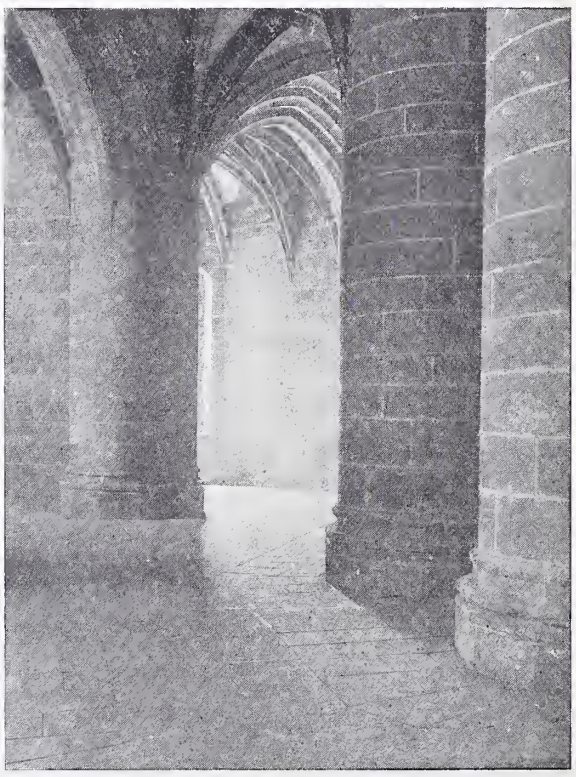
A CORRESPONDENT who asks me to devote a Causerie to architectural photography arouses the obvious reflection: "Is the photography of architecture essentially different from the photography of anything else?" He writes as though architectural photography were a thing by itself, as though it were possible to enunciate rules applying to it which do not apply, say, to landscape work. Is this so? I can't see it.

Stevenson said, "I find I never weary of great churches. It is my favourite kind of mountain scenery." In that sentence we find, put epigrammatically, the attitude of everybody towards cathedrals—everybody, that is to say, except the materialist whose sole interest in them is archæological or constructional, and who inspects the parts of a building in the same spirit as an entomologist inspects the anatomy of a beetle.

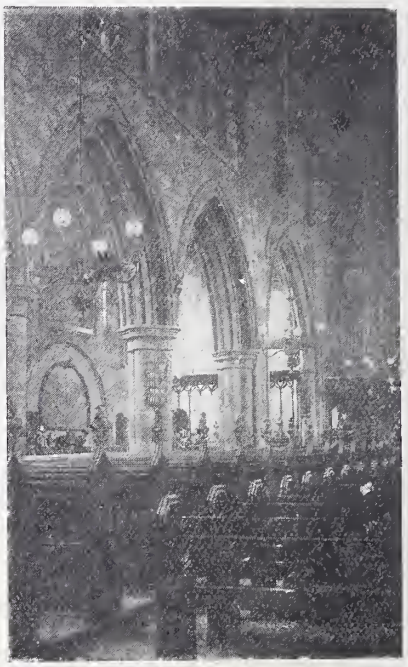
Now these Causeries profess to treat of pictorial photography alone. Technical matters are fully dealt with, week by week, in other sections of the paper. And it seems to me that the photography of architectural detail for its own sake is a technical affair, and therefore hardly comes within the scope of my department. A photograph, for example, like the one reproduced on the next page, of the carving on what is clearly a very splendid old ceiling, need not be criticised by me. Indeed, I confess that I am incapable of criticising it. I have nothing to say. It is very good —*voilà tout!*

The reason I have nothing to say is because this photograph appears to me to be in no sense itself a work of art; it is only a reproduction of somebody else's work of art. Herein we come upon the one conceivable reason why some critics might be inclined to class architectural separately from other photographic work.

The plea would be a sound one were architectural photography confined to such useful but soulless illustrating as that typified by this print of a seventeenth century ceiling. But it is not. Architectural photography nowadays goes a step further. "Great churches" are, to the seer, something more than specimens of Gothic or Norman styles; they are a "favourite kind of mountain scenery." We compare the columns of a cathedral to forest trees, we see in a pool of sunshine streaming between them a semblance to that which occurs in a glade. This poeticism is mirrored in the trend of modern pictorial photography of architecture, in which there is a visible endeavour to render the sentiment of the church, cathedral, or what not, rather than its crude superficial details. In other words, we nowadays aim to photograph architecture in much the same spirit as we photograph a landscape or a sylvan glimpse.



Pillars of the Church. *By G. Long.*



An Interior. *G. H. Smith.*

It is a well-known fact that, in landscape work, what we call "bits" are more readily registered pleasingly by the camera than big stretches of countryside. The camera is apt to dwarf wide spaces of country. Mountain scenery—and remember that it was to mountain scenery that Stevenson by no means fancifully compared great churches—is made to look puny by the tyro's camera. In a word, it is safe to recommend the would-be pictorial beginner to stick to "bits" rather than



Light and Shade on the Mersey.
By James W. Ormerod.

to try to record the charm of wide expanses.

Well, precisely the same rule applies to the photography of architecture. Look at the print entitled "An Interior," and then turn to the one rather humorously called "Pillars of the Church." In the "Interior" we have an attempt to portray the sacred edifice wholesale. As much as possible of it has been squashed on to the plate. The result is a mere map—a thing which, in landscape work, we should call a topographical view, and dismiss as quite outside the pale of pictorialism. There is an overload of detail and a resultant sense of the commonplace. This is a baldly accurate delineation of somebody else's work of art.

Whereas "Pillars of the Church," because it is a deliberately isolated "bit," is perceptibly pictorial. It eschews detail. It aims at simplicity—and achieves it, without affectation. No one could accuse the maker of this picture of having merely cribbed the idea of the architect, merely registered the plain facts of the architect's scheme. By a tasteful selection of viewpoint and lighting this photographer has not only interpreted the architect's idea (in much the same sense that a pianist interprets a composer's music, and in so doing becomes himself an artist), but has given us a glimpse of his own personality, his own notion of what is pleasant to the eye.

I don't wish to labour the point, for I feel that everyone will be able to recall from his own experience many architectural prints which illustrate it even better than do the couple which I have here reproduced. I am convinced that by thinking it over my readers will grasp why it is that I recommend them to approach the photography of architecture not in any special and peculiar spirit, but in precisely the same spirit as that in which they would approach picture-making of any other sort.

"Light and Shade on the Mersey" seems to me to exhibit another facet of the same truth. This bridge is not in itself, one may guess, a beautiful object: it is nothing more than severely practical. But the photographer has perceived its intrinsic dignity, and, by ignoring detail and choosing a sombre lighting, has made a picture out of what is normally far from pictorial. A choice of aspect, a choice of lighting, and a seemly deletion of detail—these three ingredients are the gist of the recipe for picture-making from architecture, whether interior or exterior. It is because these three are dependent on the photographer more than on the architect that the former can count himself an artist, even when using the product of the latter's genius.



Ceiling at Malcolm Hall, Halifax. Date 1631.



The Font. *By F. Cole*

In photographing minor detail the same rules apply. "The Font" shows an example of a pleasant choice of lighting. The windows behind it are a little awkward: the divisions of their panes stare one in the face rather insistently; but I imagine that this could hardly be avoided. Windows are always a problem. "Pillars of the Church" teaches us how to shirk them without failing to indicate their existence.

Aim at simplicity. Said Ruskin in his "Stones of Venice," "No architecture is so haughty as that which is simple." The adjective "haughty" is a fine and significant one. Get that haughtiness into your architectural photographs and you need have no fear for their pictorialism. Mere guide-book illustrations of architecture miss it altogether, not solely because they state facts, but because they state too many facts at once. Select the right fact, the essential fact, state it unelaborately, eliminate all the surrounding facts which have no bearing upon it—this is the rough rule which the pictorial photographer of architecture must always have in the back of his mind.

How to Choose and How to Use a Print Trimmer.

By "W. B. O." Special to "Photography and Focus."



THE print trimmer constructed on the lines of the printer's guillotine has very largely taken the place of the old-fashioned knife and straight-edge. To the professional some such machine has become a necessity, and the amateur will also find it one of those luxuries which once used can only with difficulty be given up. No one who has once mastered the trimming of prints with an efficient trimmer would think of going back to old methods; but this complete conversion depends upon the trimmer being in good working order, and upon it being used in the right way, for even with so simple and straightforward a piece of apparatus there are ways of going wrong.

The amateur who wishes to mount his prints in the American style, as it is called, using a succession of papers and showing a more or less narrow margin of each, will find not only that this form of trimmer simplifies his task immensely, but it enables him to accomplish things which he would hardly attempt if his trimming had to be done on a sheet of glass with a knife. Those hair lines of white, which are often so effective in mounts of this kind, can be cut easily and with perfect accuracy with the guillotine, and the mere manual labour of building up a compound mount of this kind is reduced to about a tenth of what it would be done in any other way. In fact, it is not too much to say that for multiple mounting such a print trimmer is indispensable.

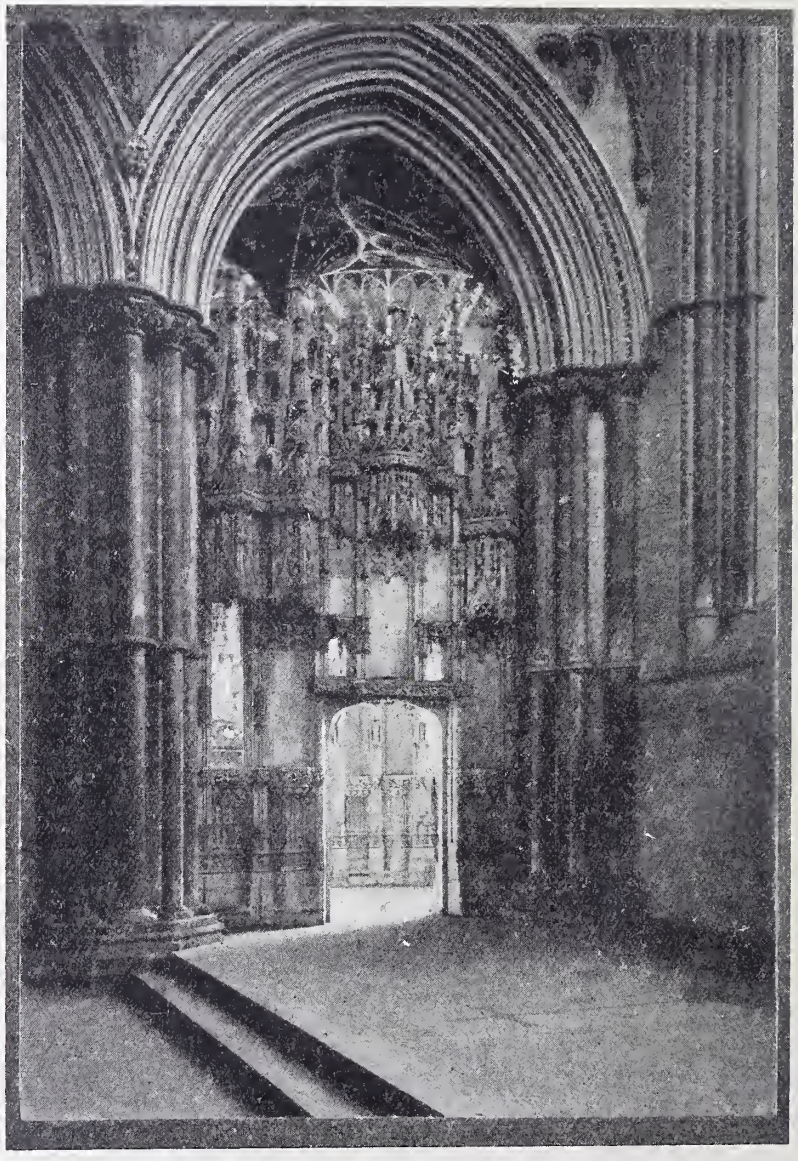
There are trimmers of this type on the market at all prices, from a few pence upwards. The cheaper ones, as a rule, cannot be used for the more accurate work, as they are too lightly made, and soon get out of order. It is economical to buy a trimmer of as substantial a construction as possible.

It, of course, should look neat, well made, and well finished, not because there is anything much in the finish of non-essentials in itself, but because this is usually a sign of good finish in the essentials. The blade should be pivoted so as not to show the slightest sign of a "wobble" on its pin, and when brought down on the edge with which it cuts, it should make a smooth uniform grinding sound, like that with a good pair of scissors, from one end of the stroke to the other.

The guide should be strictly at right angles to the blade. There is no need of a square to test this; it can be done very simply in the following way. A fairly stout piece of smooth paper—very thin Bristol board is the kind of thing which answers best—is put into the trimmer and one edge cut straight and clean. The three other edges are then each cut in succession, relying on the trimmer and its guide for the accuracy of the angles, and, of course, taking every care that the card is pushed right up to the edge during every cut. We then come back to the edge which we cut at first, and in the same way we take a narrow strip off this; one about the sixteenth of an inch wide will be the most convenient. It is easy to see if this strip is the same width at both its ends, and if it is, the guide of the cutter is set correctly.

This is a very critical test, if carefully carried out, as any error in the guide is repeated with every cut, so that the final strip will be found to contain four times the error of the trimmer, and as it is only a very narrow strip the slightest inaccuracy can be seen at a glance.

A trimmer which will not answer this test when carefully carried out should certainly not be bought, unless the photographer is enough of a mechanic for him to see his way to put it right himself without much trouble.



The Light of Ages. *By W. E. Dean*

In using such a trimmer, the point should be held in position with the fingers of the left hand, which should be spread out and placed as near the cut as possible. This is necessary to avoid any risk of the print twisting while the cut is being made, as it otherwise may do. It is only too easy to get a curved edge to the print instead of a straight one, even when the trimmer is a well made one and is in good working order, simply by inattention to this point, allowing the paper to twist or curl a little under the fingers, while the knife is coming down.

Some of the more expensive trimmers are provided with a pressure grip for holding the print while it is being cut; and this, if properly used, does away with the risk to which reference has just been made. (A very convenient form of guillotine print trimmer is that which is known as Merrett's trimming desk. It is a little different in design from the ordinary guillotine, but it is used in much the same way. The print or mount to be trimmed is arranged in position upon a kind of sloping desk, the edge that is to be cut being the one at the top of the desk. When the paper has been adjusted to the exact position required, the fingers holding it simply press it down, and the desk, which is supported on springs, goes down to a horizontal position, making the cut while doing so. This trimmer is very efficient, and is thoroughly well made throughout.)

In pulling down the blade, especially at the first part of the stroke, it is a great mistake to pull it over towards the edge against which it cuts, as the great leverage one has at such a time will soon loosen the blade on its pivot and make the trimmer unreliable, not to say useless. The blade should be so mounted that when the pressure on it is simply straight downwards it makes a clean cut, without any tendency to fold the print over without cutting.

After the print has been trimmed, its angles should be tested with the T square, as even if the trimmer is accurate there is always a possibility that the print was not put right up to the gauge each time. If no square is handy, then the first cut should always leave about a sixteenth of an inch more on the print than it should have when finished, and the last cut should remove this strip, when, if the angles are true, the strip so cut off will be the same width from end to end.

*

A NOVEMBER MORNING.

BY EDMUND F. H. CROUCH

*



The Influence of the Quantity of Developers.

THE attention that has been given in recent years to the various problems connected with the development of plates has reduced development to a very definite operation, which is easily and simply regulated. There is one subject connected with it, however, which has not received much attention, and that is the quantity of solution that is employed, and its influence.

For instance, tank development is said to be wasteful because of the quantity of solution employed; but that solution is very weak, and if its bulk were reduced very much further, without the solution being correspondingly strengthened, it might not contain enough of the active developing agent to develop a plate properly.

The process of developing uses up a certain quantity of the developing substance, and if that quantity is not present, or if it is present, but in too attenuated a solution, the development of the plate will be imperfect. The question of quantity is not one that is entirely settled by having enough liquid to wet the plate all over, although with the fairly strong developers that are generally employed for dish development what will be required by the dish will generally contain enough active developer for the plate.

But there is another side to the subject altogether. If it is a mistake to have too little developer, it may also be a mistake to have too much. If two plates of the same size are exposed on the same subject for the same time, and then developed also for the same time in the same developer, but one with only sufficient of the liquid to cover the plate, and the other with at least ten times as much, the resulting negatives will be quite different.

The one which had so liberal an allowance of developer will be found to have got much the denser of the two.

The reason for this is not hard to find. From the moment when the plate is placed in the developer the solution begins to get weaker, by some of the developer getting used up in the plate. Moreover, as development proceeds there is more and more free bromide (a restrainer) generated.

Where the quantity of developer is very limited, both these actions soon have a marked effect; but where there is a very large quantity of developer the solution at the end of development is not much weaker nor much more restrained than it was at the beginning. As plates are not intended to be exposed to the action of the full strength of the developer during the whole time that they are being developed, too much of the developer should be avoided as well as too little. E. BOOT.



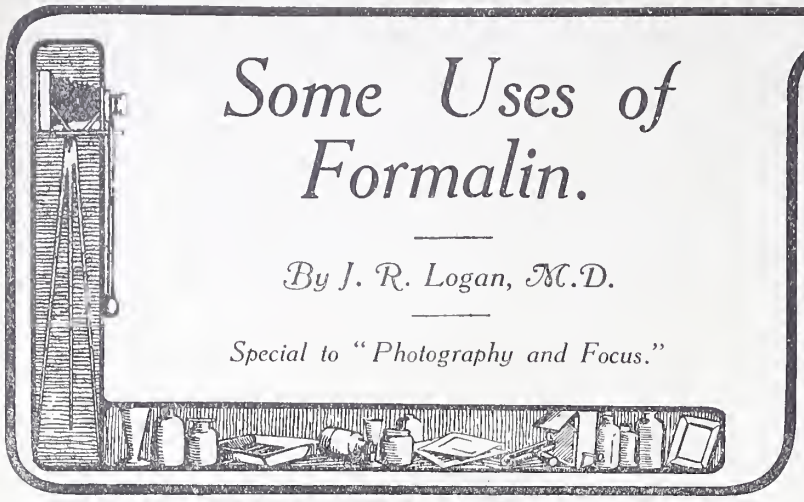
A Nomad. *By J. Arthur Lomax.*



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Some Uses of Formalin.

By J. R. Logan, M.D.

Special to "Photography and Focus."

SOME few months ago, being much distressed to find that some good lantern slides had been seriously damaged by repeated use in the lantern, I became very desirous of devising a remedy, or rather a means of preventing this unfortunate result.

My theory of the cause of the damage is this: Gelatine, however dry it may be, always contains a certain quantity of moisture. In the heat caused by prolonged exposure in the lantern this is driven off as vapour, which condenses on the cover glass, and if a drop sufficiently large to touch the gelatine accumulates, the film is softened, and a hole or distorted patch is formed.

After several experiments it occurred to me to try formalin as a preventive. If a slide be immersed in a twenty-five per cent. solution of formalin for two minutes and then set aside to dry, the gelatine is very thoroughly hardened. To test its resistance to moisture or to drops of water, I heated a slide so prepared in a flame until it was quite hot. I then sprinkled drops of water upon the slide. No damage whatever resulted. When the water was allowed to dry upon the gelatine it left faint white marks, but these could easily be rubbed off with a silk handkerchief or the finger. I take it that the white substance is the salts always present even in the best water.

It occurred to me then that the slide was so hot and the gelatine so hard from that cause that possibly it might have a special resistance at that temperature and yet fail at a lower temperature, but a few trials soon convinced me that properly formalin-hardened gelatine is insoluble in water at all temperatures. That this is the fact is easily demonstrated by taking a lantern slide straight out of the formalin bath just as it is, and holding it over a gas or spirit flame. In this way it will be found that it is possible to dry a lantern slide or negative rapidly without the slightest fear of any damage.

Thus lantern slides and negatives may be quickly and safely dried in three to five minutes by heat, if they are hardened in the manner I have described. The plan is also applicable to all gelatine-coated papers, although I have observed that matt surface papers, if they are quickly heated to dryness, become a trifle less matt in the process.

To go a little into detail, twenty-five per cent. is the best strength of the formalin bath. Twenty per cent. will do, but strengths of five and ten per cent. I have found unsatisfactory.

Of course, the hardening process is the last chemical manipulation to which the slide or plate is to be submitted, as the insolubility of the gelatine would render all future changes very difficult or impossible, and it is therefore to be used after fixing and washing.

In heating some precaution must be taken. The glass should not be held so close to the flame as to cause the water to boil, as then a bubble of steam may form under the gelatine and damage the photograph beyond repair. It seems to me best to allow the slide to drain for one or two minutes, or a little longer, so that there may be no actual drops of water on its surface, and then to hold it six or eight inches above an ordinary gas flame, moving it about until it is quite dry. But if the solution is equally spread over the surface the heating may be done immediately on removal of the plate from the bath.

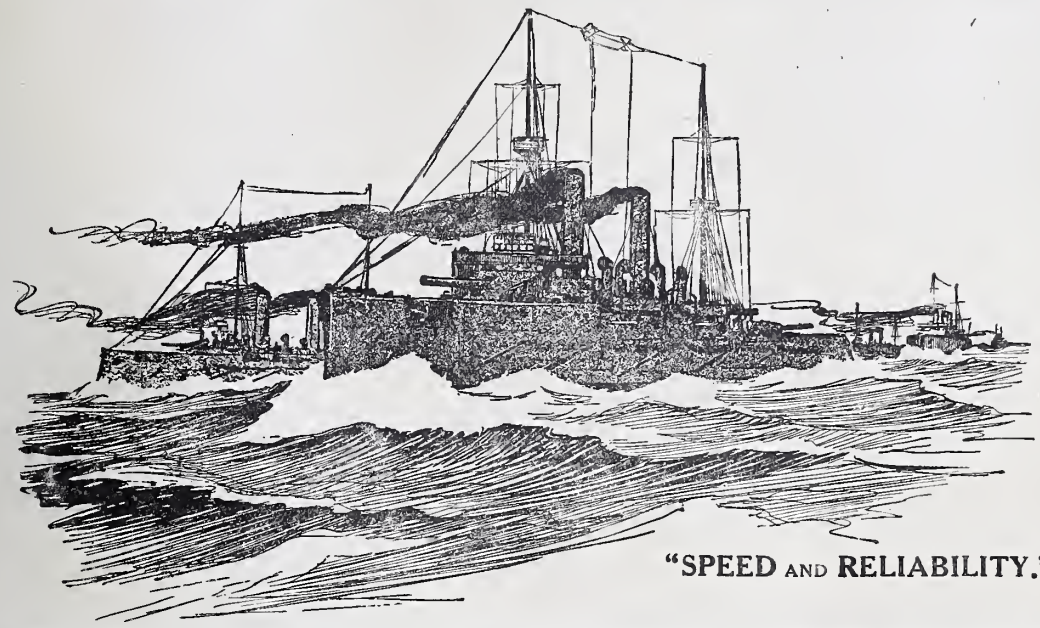
Plates so treated are much safer in the dark room afterwards, as an accidental splash of water or solution will do no damage. As a mere rapid drying process, this is safer and quicker than drying with methylated spirit.

The process also is quite an inexpensive one. The same formalin bath may be used over and over again for drying slides, negatives, or prints, although of course it is by no means inexhaustible. If we wish simply to harden the gelatine as a protection, the plate, after its two minutes' immersion in the formalin solution, may be set aside to dry spontaneously, while if, on the other hand, rapid drying is what is required, heat is applied as described.

From a Distant Reader.



As the sun breaks through the morning mist. *By Gascoigne Lynde (Madras).*



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DARK ROOM DIALOGUES

ON second thoughts it will be best not to give, in so many words, the remark made by the sunburnt man which we promised last week to report. It was not strictly photographic, and as far as it concerned his future fate rather antedated matters; but he supplemented it, on request, by saying that it was called forth by his intense surprise to find that Lawson's plates were unbacked.

"I should not say a word against buying unbacked plates if I thought you were going to back them yourself," he explained; "but I know you aren't, and I cannot imagine anyone like yourself, to whom the extra price of backed plates is so very trifling, not getting them, when he is going away and wants to bring back as good work as he possibly can."

Lawson glanced towards Oliver before answering. "As a matter of fact, I had thought of getting backed plates; but as I was going in for reflex work, and wanted them as fast as possible, I did not do so, as I had heard that backing them slowed them."

"I have known backing slow a horse," replied his friend, "but never a plate."

"I can't say I agree with you there," put in Oliver. "I have not made any experiments recently, but I did some years ago, and I certainly got more detail in the shadows on unbacked than on backed plates, when both were taken out of the same box, and presumably belonged to the same batch. If that is not sufficient to show that backing slows them, what more do you want?"

"A good deal more. I don't call that anything at all."

"But surely if it gives less detail in the shadows, it must slow them," said Lawson.

"Not at all," said the dogmatist. "The idea that it is possible to tell the speed of a plate by looking at the details in the shadows is as obsolete as Daguerreotype. If you take a plate and fog it very slightly, and then expose it, and compare it with another out of the same box which has not been fogged, you will find that the fogged plate shows more detail in the shadows than the one that was not fogged. Yet you would not contend that you could make a plate faster by fogging it?"

"But if it showed more detail in the shadows it *was* faster," persisted his opponent.

"All the same, it wasn't. A plate is only faster when it will give a properly-exposed negative with a shorter exposure, and no fogging will enable it to do that."

"But that shadow detail; how do you account for that?" asked Lawson.

"Very simply," was the the reply. "If you take up an under-exposed plate, hold it up to the light and look at it, you will see patches of shadow in which there is no detail visible. Now if you put a piece of tissue paper over it, or, better still, if you put it down on a sheet of white paper, you will see some detail at least where you never saw it before. Yet no one suggests that by putting a negative down on a sheet of paper after it is developed and fixed makes the plate on which it was taken any faster."

"Of course not."

"Why not?" continued the sunburnt man; and then he went on to answer his own question.

"Because you realise that all you are doing is altering the conditions under which you look at the negative. That is all. If you look at it one way you see more detail in the shadows than if you look at it another; but you do not get anything more in the print. Just the same when you fog the plate a little. You give it a background against which the shadow details are more easily visible, but you do not actually get any more detail in the shadows, and you certainly get no more in the print."

"We have got a long way from the subject of backing," said Oliver.

"Not so far as you think," replied the sunburnt man. "Backing a plate stops



On the North-east Coast. *By A. W. Walburn.*

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it from suffering from halation. Halation is light action where there should not be any; in other words, 'fog.' And fog, as I have just said, may make it appear for the moment that the plate is faster than it is in reality. That is why backing has been said to slow a plate. It simply prevents a certain amount of the particular local fog, which we call halation."

"I must confess that I do not see much use in backing plates," said Oliver, "except for interior work, with windows and that sort of thing. You don't get halation with ordinary subjects."

"A great deal depends upon the exposure and development," was the reply.

"Well, put it another way. *I* don't get halation on unbacked plates in ordinary work."

"I believe you," said the sunburnt man. "I know you don't, and I'll tell you why. You work with a stand camera, and you give each plate what you know to be the correct exposure. You do not develop with a lot of bromide in the developer, and you do not over-develop. And then again, you don't use thinly coated plates. Those ordinaries that you worship have got a film that is as opaque as a board."

"Has speed got anything to do with halation, then?" asked Lawson.

"A little, but not very much. A fast plate has usually a little more transparent film than a slow one, and of course anything that lets more light get through to the glass at the back favours halation. Then there is a greater likelihood of over-exposing a fast plate than a slow one, and over-exposure is a cause of halation. Forced development following under-exposure is another cause. In fact, for one reason or another, halation is much more common with rapid than with slow plates."

"I wish now I had got my plates ready backed," said Lawson.

"Never mind," said his friend, "it is not too late. You are not going away until Saturday, there is plenty of time to back them."

"What, to back half a gross of plates!"

"Why not? Oliver will give you a hand I daresay, and so will I, it won't take more than an hour or so. What about to-morrow evening?"

"I'm free," said Oliver.

"It is awfully kind of you fellows," said Lawson.

"Not a bit of it," said the sunburnt man. "Oliver, bring a drying rack with you, or two if you have got 'em, and we'll put his plates through in no time."

REVIEWS

Fallowfield's Reflex Camera—the Fallowflex.

THE popularity of the reflex camera, which we noted as being on the rise two years ago, has by no means lessened of late; in fact, with a very few exceptions, all the newest introductions in the camera way seem to be of this design. While the reflector pattern has a great many very good features, it has, in its simplest form, certain drawbacks of which inventors are busily trying to deprive it.

One of these, of which we propose to say a little more, is very cleverly overcome in the camera at present under notice.

The defect to which we refer is the limitation of the shortness of focus of the lens that is imposed by the swinging of the mirror. When the mirror is merely pivoted upon its top edge, and swings up against the ground glass to clear the way for the exposure, it is manifest that the back of the lens cannot be too near the plate or it will catch the bottom edge of the mirror as this moves up. In Nicholls's patent, under which this camera is constructed, this difficulty is got over in a most ingenious manner. The movement of the mirror is not a simple swing, but as it goes upward is first a slide in the direction of its length, then a swing, and then a reverse slide to bring it into position under the ground glass. It is not a very easy movement to describe, but when the release is pressed the mirror itself makes it easily enough.

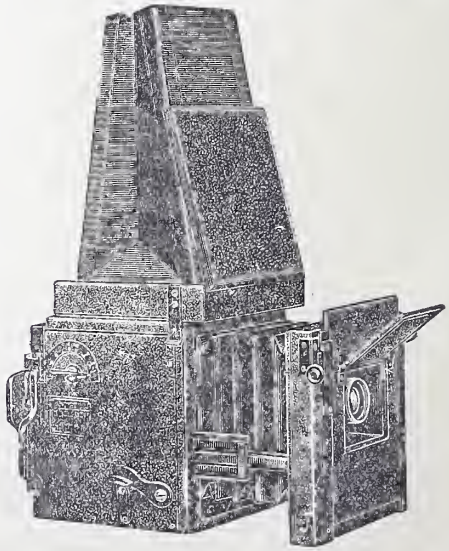
The consequence of this invention is that in a quarter-plate camera of this design it is possible to use a lens the back of which is only four and a quarter inches from the front of the plate, the advantage of which, at times, everyone who is a user of a reflex camera will appreciate.

The movement of the mirror is not by any means the only distinctive feature of the "Fallowflex" Reflex. The focal plane shutter with which it is fitted is noteworthy for the extreme simplicity with which it can be set, in an instant, to any speed required, from the fifteenth to the thousandth of a second. A slight movement of the setting lever not only sets the shutter but adjusts the speed, both ends being achieved by merely turning round the setting handle, which is also the speed index, and leaving it at the engraved speed required. As the shutter is a self-capping one this can be done after the slide is put into position and its shutter is drawn. Time exposures can also be obtained with it at will with equal simplicity.

The exposure is made by pressing a release which raises the mirror, then releases the shutter and finally returns the mirror to its original position. The action is remarkably smooth, and should remove all risk of blurring the picture even during a comparatively slow exposure, from movement of the camera. The release is effected with the right hand, the focussing knob being on the left.

The camera extension in the quarter-plate size is thirteen inches. The camera is fitted with a rising front, and a swing front can be added when required. The lens is fitted with a sky shade which can be set at any angle desired, the hood is a long one and easily removable for cleaning the mirror, and the back reversible. Book form dark slides of ebonised wood are provided.

The Fallowflex we found to be a well-made instrument of clever and practical design, which should commend itself to the many who are on the look out for a good reflex camera at a price which shall not be prohibitive.



The instrument which was submitted to us for trial was provided with a Facile anastigmat, which we found to be a very satisfactory instrument, giving good definition at f/6.8. The quarter-plate camera, with this lens and three double slides, sells at £12, or without lens at £9 9s. Other sizes are made, also a tropical model in teak.

GOERZ VEST POCKET TENAX.

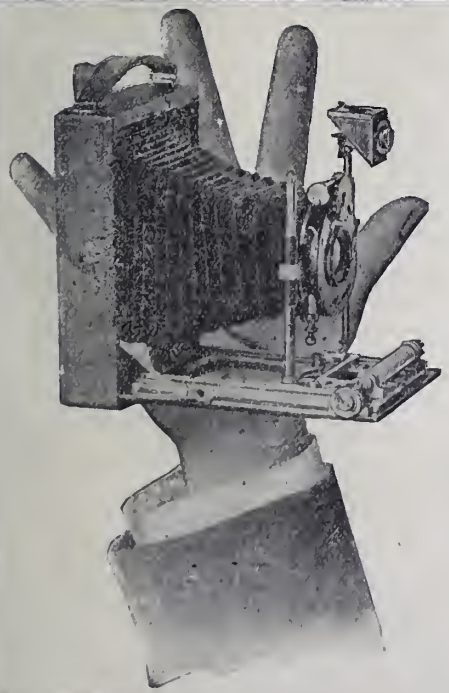
A Waistcoat Pocket Camera giving prints 7 × 5 inches by an Automatic Enlarger.



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"The time has come, the Walrus said, to talk of many things."

A PAGE from a magazine sent me by a Canadian reader is devoted to giving what we colloquially call "socks" to the Japanese who swarm on the Pacific slope. One of the chief points in the indictment is that the gentle Jap will take a situation, learn all the tricks of the trade in a week or less, and then calmly open an opposition shop next door, or nearer if possible. As a case in point we are told of a Jap who was taken on by a photographer as dark-room man. I don't quite know what a dark-room man is, but I presume he developed the negatives. He did well. If so, he must have been a better man than his master; for we all know the sort of negative produced by the ordinary professional, and can quite understand that the work would be better done by an unskilled Jap.

* * *

The other employees noticed that the little man took a great interest in the work of the establishment, and this naturally aroused their suspicions. How dare he take an interest in his work! At last came a startling discovery. One of the girls happened to go into an attic next to the skylight of the studio, and there was our Oriental friend with his eye glued to a crack, studying the secret methods of the operator. It would be interesting to know what these secret methods were. Perhaps one of them was the employment of a skylight as the only means of illumination. Perhaps the operator stood his patrons on their heads so that he might study their poses right way up on the focussing screen. Perhaps instead of the usual "look pleasant" formula he requested his sitters to try to look a bit uglier, if possible. Whatever the secrets were they were secrets no longer, for Hi Spi (if that was his name) had discovered them by means of perseverance and an attic crack. As a reward for his enterprise Hi Spi got the sack, which he accepted with smiling gratitude. Before you could say Mikado he had opened a studio of his own round the corner, where he practised, and advertised, the secrets learned through a crack. It seems silly to advertise secrets acquired at the cost of so much trouble and a cold in the eye, but then he was only a simple Japanese.

* * *

To give verisimilitude to a bald and unconvincing narrative the magazine reproduces a picture of Hi Spi's shop, which bears somewhat the appearance of a converted rabbit hutch. There is a note under the picture explaining that Hiko Spiko (he probably adopted a professional name) "learned the trade by peeping into the dark room of the photographer in whose studio he was employed as a servant." This is flatly contradictory of the information given in the letterpress, the only common feature being the fact that the Jap learned the business by a chance squint through a crack.

* * *

It will be well after such a revelation as this if all professional photographers promptly fire out their Japanese assistants whether employed in the dark room or the studio, or if they hesitate to take such drastic measures they should at least put out their eyes.

* * *

I have been in a good many professional studios and dark-rooms, but have never seen anything that suggested secret methods. On the contrary, the methods employed have been those known and practised since the days of Shem, Ham, and Japhet. The sum and substance of them all is comprised in the knowledge of how to convert a good dry plate into a bad negative, to produce from it a worse print, and to persuade the victim that the result is a masterpiece. It needs no attic crack surveys to learn all this.

* * *

When I had written thus far I remembered a request from a reader to say something about photography from balloons and airships. I know nothing whatever about the subject, but that would not have hindered me from holding forth with an appearance of authority. Yet in an evil moment I neglected to do so, laid my manuscript aside, and retired idly to rest. I regretfully admit the preliminary demolition of one or two salmon and several cucumbers. And behold I dreamed a dream.

* * *

From a window I saw a huge balloon descending rapidly to earth. With the lightning rapidity peculiar to cucumberous nightmares I found a camera in my hand, and even as I prepared it for use the balloon descended on to a parapet across the road. Delighted at the unexpected opportunity of photographing a balloon descent at such close quarters, I presented the camera, but before I could fire the shutter the balloon and its occupants had been neatly packed into a number of small parcels in the street below by a vast army of teddy bears. It was most exasperating; but still, hanging on to the camera, I resolved to wait till the balloon started again, and then take a number of snap shots from it as I soared aloft in the car.

* * *

The thought had no sooner entered my mind than I was in the balloon, and it was off at a rare pace. But I found I could not take the photographs I wished because the car was an ordinary room like a kitchen, which rushed along through street after street like a mad motor 'bus. I asked the aeronaut who sat at the table with me where the gas bag was, and he advised me to look up. The ceiling of the kitchen instantly became conveniently transparent, and I saw, not the usual bulging silk bag, but a whole collection of them, and a large number of various kites and streamers that were all being dragged along by the rushing car. Just ahead the Bridge of Sighs crossed the street. I resolved to photograph it. Before I could make the exposure we were through it, dragging the gas bags and kites under it in a higgledy-piggledy mass. The next moment we pulled up with a jerk, and I got out. I trembled with awe and horror at what I saw. To an incredible height on all sides rose buildings that appeared to be made of red baked clay, and that were covered with exaggerated versions of the grotesque figures seen in Indian architecture. I asked the aeronaut to take me back and let me get on with my photography. He said we could only get back in disguise. If I would simulate 20, Tudor Street, he would make up as the Parcel Post and convey me home a brick at a time. Then I heard a blackbird singing. It was a real blackbird, which sings to me every morning from the garden opposite. And the morning sun was shining.

* * *

I hope no one else will want to ask me about balloon photography. And my supper to-night shall be a filleted strawberry.

THE WALRUS.

SUBSCRIPTIONS.

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PHOTOGRAPHY AND FOCUS.

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FOR·EVERY·CAMERA·USER.
EDITED·BY·R.CHILD·BAYLEY.

July 27th, 1909. TUESDAY. No. 1,081. Vol. XXVIII.

Lenses for Hand Cameras.

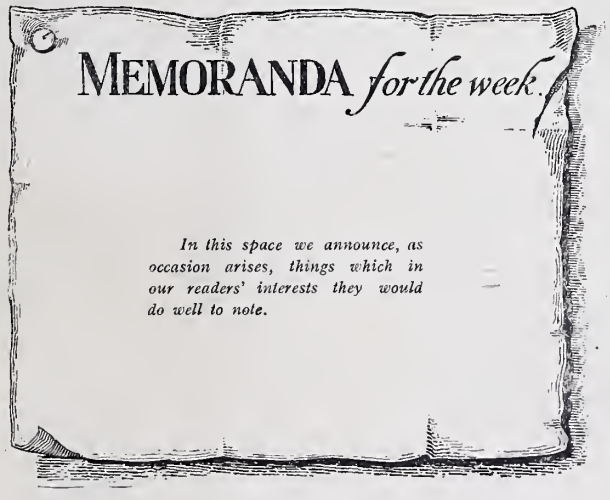
Things to be Considered in Selecting a Suitable Lens. Its Selling Value Afterwards. The Best Focal Lengths.

THE extraordinary progress in photographic lens-making which has marked the last twenty years is generally attributed to the advances in the manufacture of optical glass at Jena and elsewhere; but it has undoubtedly been stimulated and encouraged by the growth in popularity of the hand camera. It has in its turn reacted on the hand camera, and by largely increasing the capabilities of that instrument has further extended its use, for, although it may surprise some of the old time workers to learn it, a fine lens of modern construction is far more important on a hand camera than on a stand camera. With the latter it may be regarded as a luxury—a very real one, but a luxury nevertheless—but with a hand camera for many forms of work it is a necessity.

The reason for this is that in a great deal of stand camera work there is no particular reason why a small stop should not be used, and with a small stop the difference between a very fine lens and one of much inferior quality is not so noticeable. There is a difference, and a very real difference, in the quality of the definition, whatever stop may be used; but it is not a difference that counts for many photographic purposes. Whereas with a hand camera if one can get as sharp a picture with f/6.3 as with another lens at f/11 the exposure required is reduced to one-third what it was, and the range of subjects with which it is possible to deal is enormously widened.

A Good Lens needs a Good Camera.

The hand camera, then, is the photographic instrument with which, more than with any other, it pays to have a first-rate lens. The advice, then, that is often given to spend the money on a first-class lens rather than on a costly pattern of camera is sound enough. Yet, like everything else, this can be carried too far. With the rigid box form cameras (now going very much out of fashion) this advice was sound enough. However cheaply and flimsily the camera was made, the design generally ensured rigidity between back and front, and parallelism generally followed from the way in which they were machine made. But with folding cameras, unless these are well and substantially made, there is little or nothing gained by having a high-class lens fitted. There is no need to go over the ground again; it was admirably covered by an article by Mr. Fowler in *Photography and Focus* for April 27th this year entitled "Bad Definition with Good Lenses," in which he showed how important a part in getting sharp pictures was played by the camera itself, so that with a good many instruments it would be better to be content with a moderately good lens, being satisfied to take subjects which allowed it to be stopped down, say, to f/11, or even to f/16, until a first-rate lens and a well-built rigid camera can both be obtained. In that way, were the camera a little defective, its defects might not be very noticeable.



What Focus Lens to get.

The most agreeable perspective is obtained when the focus of the lens is comparatively long. Half as long again as the longest dimension of the plate is none too much. This gives us about 6½in. as the focus for a quarter-plate. With such a lens we shall not get photographs in which there is a noticeable falsity from exaggerated perspective, but a focus still longer will be all the better on this ground, though

on no other. But there are other things to be taken into consideration besides the agreeable character of the perspective. There is the standpoint available, and, still more important, there is the question of depth of focus. There are many subjects we may want to take which such a lens will prevent us from taking, simply because we cannot get far enough away to take them all in. Yet with the lens ordinarily fitted to a quarter-plate hand camera there would be no trouble at all, so that a photographer with a 6½in. lens on a quarter-plate, were he working with others who had cameras with the 4½in. or 5in. lenses generally supplied for quarter-plate work, would be constantly feeling the limitations imposed by his lens. Nor would he derive any particular counterbalancing advantages.

Perspective a Matter of Standpoint.

After all, perspective is not affected by the lens, which only decides the scale of the picture. Perspective is decided by standpoint, and standpoint only. All lenses from the same point, with certain few exceptions that may be disregarded, give exactly the same perspective. The short focus, or rather the wide angle lens, is said to give exaggerated perspective only because it gives an image on a small scale, and so includes a lot of subject that the long focus lens on a plate of the same size does not. Trim down the picture given by the short focus lens until it includes no more of the subject than the picture given by the long focus lens, and the drawing of the two will be identical. The shorter focus picture will be a smaller one than the other, but if both are enlarged to the same size there will be no difference whatever between them.

The one which was made with the short focus lens has required more enlargement, and so to that extent may be slightly inferior in definition; but unless the enlargement is altogether excessive in degree this would not be noticeable.

On the other hand, as the short focus lens had greater depth of focus, the chances are that the definition of the negative it gave was better, and that this would more than counterbalance any difference in the quality of the definition due to the extent to which enlargement was carried.

What is the Best Focus to choose?

Depth of focus in hand camera work is a very important consideration indeed, and in the matter of depth of focus all lenses of the same focal length are alike at the same aperture. (This statement is one which is sometimes traversed on the ground that it only holds good for the centre of the picture, but the contention is little more than verbal hair-splitting, and, as far as the actual use of the lens is concerned, the statement that at the same aperture all lenses of the same focal length are equal in depth will certainly be found to hold good.)

Moreover, as our readers know very well, keeping the aperture the same, the shorter the focus the greater the depth. Thus the depth of focus which we should get with a 4¼in. lens at f/7 would need f/8 were the lens one of 4½in. focus, and f/10 were it a 5in. lens. In hand camera work these are very important differences indeed, and so the amateur who does not want to have to focus with extreme care, and wishes to have ample depth of focus and yet employ a large aperture, will do well to use a lens of decidedly short focus. Such a lens as one of 4¼in. on a quarter-plate or 5in. on a plate 5in. by 4in. is what will be found most suitable.

But in using such a lens, if we want to avoid unpleasant perspective effects, we must be careful not to allow the lens to influence us too much in the choice of a standpoint wherever there is a chance of these manifesting themselves. A great number—in fact, a great majority—of hand camera subjects do not reveal the nature of the perspective, and with these the lens may be used from any point of view that happens to be suitable. But when the subject is one in which there is a chance of the perspective looking forced, then we must remember to get as far away as we can in reason, and be satisfied by getting the actual picture we want as merely a comparatively small patch in the centre of the plate, relying upon enlargement later on to bring it up to the size we require.

R. C. B.



The Collection of Photographs.

At the annual conference of the Museums Association Sir Martin Conway read a paper on the collection of photographs, which he said he thought might very well take the place of postage stamp collecting. For seven years he had been systematically gathering not merely photographs, but prints of all kinds and on all subjects, particularly on art. He cut up magazines and even books to get the illustrations he desired, having a unit of size, and cutting down the illustrations, when necessary, mounting them on mounts, and classifying them like a card catalogue. "People," Sir Martin observed, "carried about an enormous amount of unnecessary learning in their heads; that was one of the things which made them so stupid." He advocated the formation of such illustrated catalogues to knowledge as he had suggested to museum authorities.

That the formation of systematised collections of photographs might serve very useful purposes is unquestionable. But it is difficult to see what practical end is attained by the wholesale gathering of photographs and prints on all sorts of topics, ruthlessly cutting down any that happen to be larger than a standard size, and mutilating books in the interests of such albums. It would be far better for those who are bitten with the collecting mania to select some particular subject and methodically to gather together all the illustrations dealing with it that they can. Persistently carried out, such a collection, whatever subject might be selected, would ultimately be of real value and worth. If need be, large pictures might be photographed down to a more convenient size; but cutting

them down to fit some arbitrary standard is putting the cart before the horse, making mere system of greater importance than the object to which the system is applied. It reminds us of the scientist who was such a martyr to method that his biographer tells us he considered it far more important to get a letter properly filed away than to acquaint himself with its contents.

A RETROSPECT.—JUNE, 1909.

Oh! leafy June: I thought, before you came,
Of all the joys connected with thy name;
The hum of insects; while refulgent beams
Of sunshine fell across my hopeful dreams.

Thy glories, sung by bards who never tire,
This year should be accompanied on the lyre;
Oh! queen of months, I sought thy smile in vain,
Whilst thou departed from thy rule to reign (rain).

Oh! leafy June; I laid in quite a store,
Of plates and paper, and of films galore;
I furbished up my apparatus, too,
Relying on a little aid from you.

But thou hast cruelly betrayed my trust,
And shattered all my hopes unto the dust:
I see my error, now it's much too late;
I should have learnt to use the old wet plate.

Another year I will not be so rash,
Nor spend in photographic goods my cash:
I'll keep it for (in case my hopes you quash)
A new umbrella and a mackintosh.

Using Too Much Developer.

The point raised in the latter part of the article by Mr. Boot on the influence of the quantity of developer upon the final result, which we printed on page 60 last week, is one which, if not absolutely novel, is at least one which has hardly received the attention which it deserves. The fact that an unexposed plate will fog in a developer in which an exposed one will develop quite cleanly is well known, and cropped up only a week or two ago in our "Dark Room Dialogues." The explanation there given by "the sunburnt man" is no doubt the correct one. Now, as Mr. Boot points out this week, if an excessive quantity of developer is employed, the restraining action of the bromide formed during development, upon which we rely for keeping the plate free from fog, may be greatly reduced, and the plate developed throughout in what is almost fresh developer. The result is, if not fog, at least more development than would take place if only just sufficient developer were used. The chief practical conclusion to be drawn from the note is this, that if we employ time development it is wise to avoid variations in the conditions as much as possible. That is to say, we should make a practice in everyday work of using approximately the same quantity of developer for each plate of the same size that we develop if we would ensure uniformity.

Akin to the matter referred to in the preceding paragraph is that of rocking the developer. If two exposures identical in every respect are developed side by side in equal portions of the same developer, and one is rocked just sufficiently to prevent any chance of mottling, while the other is rocked vigorously during the whole time of development, it will be found that the plate which is most rocked is most developed. Hence another cause of irregularity in development against which we should guard. The necessity for rocking is often exaggerated. All that need be done is to give the dish a tilt once or twice a minute to prevent the developer remaining stagnant. Anything like the violent splashing of the liquid from side to side, which some amateurs practise, is not merely unnecessary, but is wasteful and messy.

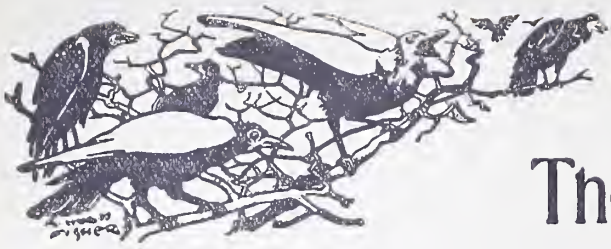
A Nautical Number.

As we announced last week, this issue of *Photography and Focus* is occupied very largely with photographs of shipping and marine subjects, and several of our articles deal with the same topic. There is no time of the year when so many of our readers are at the seaside as the week about August Bank Holiday, so that the subject is fairly topical. We only hope that the weather for what is the holiday season of the year will be all that one can wish. A page this week, we would point out, is occupied by the rules of our competitions, three of which, it should be noted, close on Saturday, July 31st.

☛ *A Forecast of Next Week's "Photography & Focus."*

THE bill of fare which we shall lay before our readers next week promises to be a very inviting one, as well as one of a most varied character. Mr. Lewis describes how clouds may be printed-in to landscapes from separate negatives, telling the kind of cloud negative for which to aim. Mr. John E. T. Clark contributes an article entitled "How I Painted a Background" which is sufficiently described in its title. "Practicus" deals with "The Effects of Combining Lenses"; Mr. S. J. Tayler sets forth with illustrations how he made a cheap but effective dark-room lamp; the importance of having a perfectly definite aim if success in picture making is to be achieved is emphasised by Mr. W. Bolderwood; while Mr. Hanson explains how a platemark can be put upon postcards without special apparatus. The series of articles on lenses will bring us to the "Cooke" lens of Messrs. Taylor, Taylor & Hobson, while the holiday information includes an illustrated account of Wharfedale. We hope also to publish a "Critical Causerie"; so that we may fairly claim to have

SOMETHING TO SUIT EVERY TASTE.



The Week's Meetings.

MONDAY, JULY 26TH.

Erdington P.S. Criticism Evening.

TUESDAY, JULY 27TH.

Nelson P.S. Ramble.
Batley & D.P.S. Cawthorne.
Birmingham P.S. Coleshill.
Hackney P.S. "Stereoscopic Photography." T. W. Shore.
Nelson C.C. Holiday Prints.

WEDNESDAY, JULY 28TH.

Everton C.C. Members' Evening.
Manchester A.P.S. Dovedale.

SATURDAY, JULY 31ST.

Halifax C.C. Wheatley Valley.
Everton C.C. Hadlow Road.
Glasgow S.P.A. Garelochhead.
Rugby P.S. Weedon.
Oliver Goldsmith P.S. Arundel.

MONDAY, AUGUST 2ND.

Everton C.C. Monsal Dale.
Bootle P.S. Lichfield.
Batley & D.P.S. Around Batley.
Bristol P.C. Chipping Sodbury, Temple Meads.

Societies will have their meetings announced here if the syllabus is sent to us at the heginning of the Session or from time to time.

The Foster Arc Lamp for Photographic Purposes.

THE use of electric lighting is now so universal that the photographer who has not got a supply of current at hand, from which he can run an arc lamp if required, must be the exception rather than the rule, and a good many may therefore be glad to know where they can obtain an efficient arc lamp at a moderate price. Such an apparatus is the Foster lamp, which is made by the Foster Arc Lamp and Engineering Co., Ltd., of Worple Road, Wimbledon, London, S.W., where we recently had an opportunity of seeing a number of the lamps running and in course of manufacture.

The lamp for ordinary photographic purposes is known as the "S.P.A." pattern, and is made to be used on either alternating or direct current supply, and has a nominal candle-power of from four to six hundred. But, as this lamp is of the type known as the "enclosed arc," it has a longer arc than an unenclosed lamp, and gives a flame much more rich in violet light, so that its nominal candle-power is not directly comparable with that of other lights. A 600 c.p. enclosed arc lamp, for example, requires far less exposure than 600 c.p. obtained by incandescent or other gas light, which, although equally powerful to the eye, is yellow rather than violet in colour. The lamp can be used on a circuit of 100 volts, but 150 is preferable to get the full length of arc, and therefore the full efficiency of the light. It takes from three to four ampères, and will burn for from thirty-five to sixty hours, according to the current consumed, without trimming.

The convenience and suitability of the lamp for the purposes of photographic portraiture are shown by the fact that a large firm with several studios doing a popular class of work finds it advantageous to use the lamps for the whole of their exposures, whether daylight is available or not. Three lamps are used as the main source of light, and one in another position serves to lighten the shadows. Such an arrangement makes them quite independent of fog, and allows the work to be carried on by night or by day.

The Foster lamp is one of very simple device, substantially made, and free from anything likely to get out of order. Its method of working can be seen at a glance, so that anyone can understand and use it. The lamp for direct current sells at £2 14s., and for alternating current at £3 10s., these prices in each case being for the lamp complete with globe, resistance, etc., all ready for use.

BUSINESS NOTICES.

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PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must he accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may he addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must he sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

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TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should hear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that hy so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement heforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to he arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., hut can only be seen at other times by appointment.



ADDRESS WANTED. Will Mr. C. H. Dixon, who took the first prize in the Beginners' Competition for May send us his correct address, as the prize has been returned marked "Not known"?

THE RAJAR CAMERA awarded each month for the best print on Rajar papers has been won by E. J. Robinson, Titheburn Street, Poulton-le-Fylde Preston. The paper was bought from W. Jackson, Talbot Road, Blackpool.

"THE PHOTOGRAPHIC ANNUAL FOR 1909" has just been published, price 1s. nett (or 2s. cloth bound and interleaved for memoranda), by Messrs. Dawbarn and Ward, Ltd., 6, Farringdon Avenue, London, E.C. Like its predecessors, it is an excellent shillingsworth, with a host of useful information concealed within it. Unfortunately, "concealed" is the only word that fits the case, for the absence of an index, for which the editor in the preface implores his readers not to ask, deprives it of quite three-fourths of the utility it might have. We are told within it more than once that "No index is needed." We regret to see a good book spoiled for a fad, and hope that next year's edition will have eight or ten pages given up to this purpose. It would be quite sufficient. Perhaps, at the same time, the group of letters—we decline to call it a word—"photogram," might also vanish into the limbo of mistaken notions.

"A HANDBOOK OF PHOTOGRAPHY for Amateurs in India." Under this title a twelve shilling book by Mr. George Ewing has just reached its second edition. The work, which is published by Messrs. Thacker, Spink and Co., of Calcutta, contains over 700 closely printed pages, and is curious from the attention given to obsolete processes, concerning which a lot of information has been compiled from old journals, etc. But it must not be supposed from this that the work is not up-to-date. Ahead of it, in fact, for we read that "both the Powrie-Warner and the Autochrome are now on the market." Mr. Ewing should be careful as to the source of his statements. We have read the book with considerable interest. At its price, we are bound to confess it is very poor value in the United Kingdom, but we understand that book prices in India range higher than they do over here; and, overlooking its cost, there is a good deal of information between its covers.

THE SHEFFIELD PHOTOGRAPHIC Society, at its annual meeting, elected Mr. James W. Wright president, and Mr. H. Merrill, of 22, Harbord Road, Norton Woodseats, Sheffield, honorary secretary.

WORK WITH PLANISCOPES. Some new showcards, just issued by Messrs. J. J. Griffin and Sons, Ltd., Kingsway, London, W.C., show in an excellent way what can be done with the Planiscope lenses of that firm. The cards are being sent to all the leading dealers.

A SIMPLE METHOD of the stereoscopic photography of small objects was described by Mr. T. J. Ward at the Marylebone Camera Club. It could be applied to flowers, bird's eggs, microscopic slides, etc. The illuminant employed was an acetylene cycle lamp or magnesium ribbon, and two separate pictures were taken without moving the camera, the object itself being turned through fourteen degrees on a vertical axis.



Outward Bound (see page 81). By David Laidlaw.

THE DALLMEYER BEANFEAST, a very enjoyable function, was held this year at Southend. A Dallmeyer cricket club has been formed.

A PRINTING PAPER FOR HOT CLIMATES. Mr. H. F. Bishop, of Nadiad, writing in the "Times of India," praises very highly Eastman's Water Development Platinum Paper as being very well suited to hot climates. It prints out very much as blue print paper does, is immersed in water at 110° Fahr. for a minute or two, and then rinsed in hydrochloric acid, washed, and dried.

A POCKET ELECTRIC DARKROOM LAMP has been put upon the market by the Midland Camera Co., Ltd., of Slaney Street, Birmingham. The lamp is in two forms—one (A) sells at 3s 6d., and is provided with a primary battery: the other (B) sells at 7s. 6d., and works from an accumulator. A little lamp of this kind is a great convenience in the darkroom, as it can be used for many purposes for which the bigger lamps are unsuitable—for looking into cupboards or dark corners, for occasional use when plate-changing is being done in the dark, etc.

WATER METERS. There has been trouble in the Keswick Town Council. Water meters have been fitted to some of the professional photographers' supplies, but a member contended that this had not been done in every case. The council, however, "proceeded to the next business."

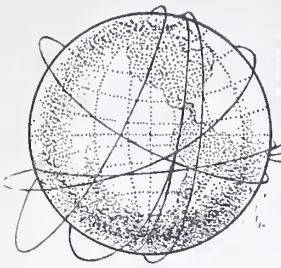
THE CITY AND GUILDS OF LONDON Institute has issued its programme for the session 1909-10, which is published, price 9d. nett, by Murray. We note that the acting examiners for the year are Sir William Abney, Mr. G. Watmough Webster, and Mr. C. W. Gamble.

THE HENDERSON AWARD a medal, cash, or apparatus to the value of £5, is given annually by the committee of the L. and P.P.A. for the best paper on a photo-chemical or kindred subject. Entries for this year close August 19th. Particulars can be obtained, for a stamp, from the honorary secretary, E. Human, 43, Whitta Road, Manor Park, Essex.

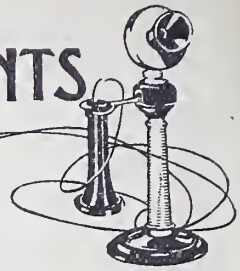
THE M.C.C. LIGHTNING FIXING SOLUTION is a preparation which is put on the market by the Midland Camera Co., Ltd., of Slaney Street, Birmingham, and is intended to take the place of hypo. The solution is a clear one, which only requires dilution with four times its bulk of water for plates, or with ten times its bulk for papers. It acts rapidly and effectively, the disappearance of the unaltered bromide, as it is watched from the glass side of the negative, being very speedy. Those of our readers who would like to try a preparation, which is said to be "without any of the disadvantages connected with the use of hypo," can obtain a bottle, containing enough to fix 150 quarter-plate prints, from any dealer for 9d., or post free from the makers at the above address for 11d.

GERVAERT, LTD. Under this name the firm of Gervaert, of Antwerp, well-known as large makers of photographic papers of all kinds, is opening business in this country at 26 and 27, Farringdon Street, London, E.C.

CARRYING THE CAMERA. An amateur writes in the "Glasgow Evening Times" that he "has no difficulty when cycling in the country in carrying his half-plate photographic kit on his back. The stand is strapped in on the top of the bag containing the apparatus, and very little trouble is experienced there from jolting and jarring. There is, however, one essential element when this is done that may not be neglected, if comfort is considered—the carrying strap must be broad. The ordinary narrow strap is no use, as it only makes a reasonable burden seem three or four times its weight. A good broad strap will be found useful at all times, but when any distance is to be covered, either by cycling or walking, it is the only method of carrying the outfit comfortably."



REPLIES TO CORRESPONDENTS.



REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked, only one will be selected for reply. (4) Prints may be sent in for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post (and then only when they concern apparatus actually in the possession of the enquirer on approval), for which purpose a stamped addressed envelope must be enclosed.

G.W. (Swansea).—We have sent your letter on.

J. R. NEWMAN (Wexford).—We have sent your enquiry on.

LAMPLIGHT (London, E.).—It is quite as fast as any plate.

R. COMLEY (Chelsea).—We replied to you last week. Please note rules above.

A. D. PIKE (Cheltenham).—We regret we cannot trace the letter to which you refer.

H. E. HABERSHON (Bexley Heath).—As you suppose, we deplore it as much as you do, but can do nothing.

OLENDA (Waterford).—The Thornton-Pickard Manufacturing Co., Altrincham, will no doubt supply what you want.

TEDDY BEAR (Lowestoft).—If you will write again stating precisely what it is you want to do we will do our best to help you.

D.T. (Tredegar).—You must work out the distances by actual trial. Spectacle lenses can be got from any optician for a few pence.

YRAO (Clifton).—No doubt the speed on the "Chapman Jones" plate tester is what is meant. If you treat it as equal to 111 Wynne you will not be far wrong.

J. C. BRIGGS (Whitehaven).—You are not in the least likely to have any trouble with the customs. Did you not read our leaders of a month or two ago?

K. GOGGS (Rochdale).—To find the true F number with the single lens, multiply its focus by the F number marked on the stop, and divide by the focus of the complete lens.

H. GIDDINGS (Warrington).—The order of our preference is 3, 4, 1, 2, but it is little more than a vague personal feeling; they are all of the first rank, and you cannot go wrong with any.

MISS CITROEN (Hamilton Terrace).—You could no doubt get the lessons you require from Mr. John H. Gear, of 8, Nottingham Terrace, Regent's Park, W. Mr. Gear is a most capable teacher, and one of our leading workers.

R. A. FOSTER MELLAR (Bude).—Your first enquiry must have miscarried, we do not recollect seeing it. "Portraiture for Amateurs without a Studio," 2s. 6d. nett, and "The Studio and What to do in it," 2s. 6d. nett, are what we should recommend. Either can be got for 2s. 9d. post free from our publishers.

STEREO (Dundee).—We feel doubtful whether in every case the two shutters would make the exposure exactly at the same moment, and for rapidly moving objects if they did not do so, the result would, of course, be a failure. But in the great majority of cases the arrangement we have no doubt would work well.

ANXIOUS (Dover).—A hundredth of a second ought to be about right; but at present comparatively few people have had any opportunity of trying. If you give "sea and sky" exposure, you must not expect to get any detail in the shadows; but for a distant view this would be correct. We wish you luck.

W.G.P. (Preston).—See our answer to R. A. Foster Mellar for useful hooks. You would do well to practise portraiture without any permanent alteration of the premises until experience, which alone can be of much service to you, tells you the possibilities of the place. A good deal could be done no doubt with it just as it is, as the books will make clear.

ST. ANDREWS (St. Andrews).—Your question is not an easy one to answer, as it does not admit of a very definite reply. Certainly the plates must not be "over-exposed," but should be fully exposed and not too fully developed. You will learn more by making a few comparative experiments than by any number of what are framed to be general statements.

N. MARSDEN (Clapham).—The process is quite easy, in fact it is one of the very easiest of printing methods; but it does demand one thing, and that is cleanliness of dishes, measures, etc. And to judge from your print this is very far from being your strong point. You must note this and try again. It would be against your interest for us to prophesy "smooth things."

G.W.T. (Dunstable).—Write direct to the makers, and you will have no trouble.

W.L. (Raynes Park).—Fortunately it is not so. In actual practice it answers very well.

DEVELOPER (Oldham).—There is no reason why it should not. It worked perfectly with us.

C. WATERS (Warley).—Foreground shutters are on the market; but only have a limited use.

F. D. LEVY (Frankfort).—Much obliged for the print, but we are not in a position to use it.

BISKRA (Grosvenor Square).—Adams and Co., 24, Charing Cross Road, W.C., supply it. In every way satisfactory is our verdict.

T. N. WROUGHTON (Harringay).—Our publishers can supply all the copies for which you ask, price 2d. each, postage 1s. 2d. per copy extra.

CLAUDE DE NEUVILLE (Woking) asks, "Will a pictorial worker recommend an ideal centre in Surrey for landscape work? Hilly country, with some water preferred."

CARBON (Woodside Park).—Illingworth on "The Carbon Process," price 1s. nett, or post free 1s. 2d., will tell you all about it; but why not be satisfied with your present method?

J. BAGOT (Merthyr).—Evidently someone has blundered. The formula is quite unworkable as you send it. We are glad to note, at least, that you did not get it from *Photography and Focus*.

ENCALADA (Lima).—If the things were ordered direct from the makers, the Watkins Meter Co., of Hereford, they should reach you in perfect condition The paper is sent out hermetically sealed.

C.M. (Aberdeen).—We get quite a number of these prints sent us every year, but cannot use them unless altogether exceptional in interest and merit. It is common knowledge that you enjoy very light nights in summer.

HARRISON WATT (Belfast).—Two Leclanche cells should be quite sufficient, as the demand upon them would be very intermittent; but something would depend upon the distance at which you propose to be from the shutter.

J. REID (Glasgow).—The shade referred to was the one you mention. If it was drawn out until it began to cut off all that could be done was done; no shade could do more; and the fact goes to show that in that case very little of a shade was needed.

W. B. SPRY (Chudleigh) wants the name and address of a photographic chemist in Paris (English speaking, and preferably towards the East End) who would serve him well as regards a dark room, etc. Perhaps some reader can provide the information.

H.E.H. (Bexley Heath).—The Wratten Panchromatic is what we should use; but you could hardly do better than put your query to Messrs. Wratten and Wainwright themselves. Dr. Mees, their scientific director, would be able to tell you better how to proceed than anyone else we know.

JENNY ASS. (London, S.E.).—This is just one of those queries with which we feel we cannot deal satisfactorily. Whether you ever got the cost of patenting back again would depend far more on the business energy and skill with which the thing was pushed than on its ingenuity. The idea is a clever one, but more than that we cannot say.

TOURIST (Cupar).—Your query is based on a complete misconception. There is no such difference in quality between the best brands of plates as you appear to think. You could not do wrong with any of those you name; but taking an unknown brand away for a holiday without familiarising yourself with it by ordinary use for some time beforehand is asking for trouble.

NOVICE (Stratford).—Apparently you do not put the focussing screen near enough to the lens to get a sharp picture with the complete lens. Try it at only half the distance the front one wants or thereabouts. We cannot explain the Waterhouse stops in this column, it would take too much space. You had better get the "Hand Camera," by Wastell and Bayley, price 1s. nett, or post free 1s. 2d., and read it carefully. Then write us on any point not clear.

C. P. SMITH (Nottingham).—The matter is having our attention.

JEAMES (Goswell Road).—Many thanks for the cutting. We have sent it on.

CAVENDISH (Easthourne).—Try one-tenth of second in the best light you can get.

F. C. G. WEBB (Stafford).—We are sorry to say we have no information on the subject.

H. F. S. BARCLAY (Cambridge).—Messrs. Marion and Co., Soho Square, W., are the makers.

D. OSMOND (Ilford).—The cards are excellent. We are very glad you found the article so helpful.

TINDALL (Patricroft).—You might try advertising them; but there is little or no market for such.

J. G. WOOD (Brislington).—There is no best in the case; but either of those you name will do very well.

A. VOWLES (Bath).—Our issue of June 8th contained the list and can be obtained post free from our publishers for 2½d.

N. P. PURECHA (Karanja).—Under-exposure is the cause of the blackness. Your stamped envelope is not current here.

G.G. (Edinburgh).—Our trials were in every way satisfactory. Any of the recognised developers may be used with it, including the one you name.

T. CRABTREE (Rochdale).—We are sorry our recollection does not enable us to reply, but if it was stuck on a card it would certainly be treated as "mounted." The size of the card is not material.

S. E. MACNAIR (Lisbon).—The print is simply a silver print, bromide or gaslight for choice, bleached in hydrochloric acid and bichromate, washed and dried. The process seems to have died a natural death.

ENLARGEMENT (Hornsey).—All turns on the meaning of the word better. It is possible that you might get finer definition when critically examined, but the process you are using ought to give you all the definition you can possibly want.

F. G. PRINEAUX (Kilmainham).—The question turns entirely on whether they represent or suggest a summer landscape. If the trees are wintry in appearance we cannot think they would stand any chance of award whenever taken.

S. TREEHARD (Bradford).—It is very strange conduct in an honorary secretary, but there seems to be no remedy. You had better avoid sending to their exhibition in future; but probably you have already resolved to do this. It is a "queer world," as you say.

H. DE SWETTENHAM (Poona).—The simplest way would seem to be to have the shutter fitted to the camera front, with another fitting on the front of the shutter to take the lens panel. Probably you could get this done locally, without sending it to England for the purpose.

PIP (Bow) asks, "Where can I sell the copyright of some good photographs which I took?" *A.*—Such an enquiry is far too vague; and we can only refer "Pip" to our advertisement columns, and to the series of articles we published earlier this year on "How I Made my Camera Pay."

BOTCH (Glasnevin).—It is nothing to do with the stop, but is a matter of lighting, exposure, and development. You must cut off the top light a good deal more, and we should use a better background. The exposure is about correct, but the plates are very much over-developed and foggy.

FACTOR (Staines).—A factor is not intended to be regarded like the laws of the Medes and Persians; and every plate developed by it should be regarded as a test, indicating whether the factor has been correctly assumed or not. Clearly you want a little more density than 14 will give; and should therefore adopt 15 or 16.

E.R.S. (Plympton).—There is no book in print on the subject. Your difficulty seems to point to under-exposure; as if the plate were properly exposed the darkest leaves could be made to show up clearly against a dark background. Expose fully and develop lightly is the rule, even if the negative has subsequently to be intensified.



Beginners' Competition.

Open to all photographers who have never taken an award.

CLOSING DATE. — Saturday, July 31st.

PRIZES.—First, a signed copy of "The Complete Photographer," a half-guinea work by Mr. Child Bayley, now in the third edition. Second, a free subscription to "Photography and Focus" for twelve months. One or more certificates of honourable mention will also be awarded.

Rules.

(1) Each competitor can send as many prints as he likes, but each print must bear on the back the coupon, published each week, the name and address of the sender, the title of the picture, and no other writing whatsoever.

(2) No print will be eligible that is larger than 5½in. × 3½in. (postcard size) or 5in. × 4in. Nor are mounted prints eligible.

(3) No handwork other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute, the editor shall have the right to call for the negative from which the entry purports to be a simple direct contact print.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce without payment, any of the prints sent in, winning or otherwise.

(6) All entries must be addressed "Beginners' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date at the very latest.

Advanced Workers' Print Competition.

PRIZES—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates of honourable mention.

Rules.

(1) All photographs must be sent addressed "Advanced Workers' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., postage paid, to reach there not later than the first post on the closing date, and must contain a stamped addressed envelope or label (*not loose stamps*) if they are to be returned.

(2) Each photograph must be mounted, but not framed. Prints in slip-in mounts are not eligible. Each must bear on the back the name and address of the sender and the title of the picture. No letters or other communications must be enclosed with the prints. Every print must bear attached to its mount a coupon for the competition of the month, which will be found in each issue of the paper.

(3) Each photograph must be the work of the competitor as regards selection and arrangement of the subject, exposure and development of the negative, and printing, development or toning, and mounting of the print.

(4) The prints which are accompanied by stamped envelopes or labels will be criticised by post, and the editor shall have the right to reproduce any of the prints, winning or otherwise. The awards will be made a fortnight after the closing date.

(5) Awards may be increased or withheld at the absolute discretion of the judge, and in all cases of dispute the decision of the editor will be final.

(6) There is no restriction as to the eligibility, except as set forth in these rules, and except that the same negative must not be used more than once in the competition. That is to say, that a print from it once submitted, all further prints however varied, are ineligible.

(7) Neither editor nor publishers of *Photography and Focus* shall be held in any way responsible for the safety of prints or for their return to the competitors.

(8) The sending of a print to the competition will be regarded as a declaration to the effect that it is eligible under these rules, and that the competitor agrees thereto.

CLOSING DATE.—Saturday, July 31st.

Special Subject Competitions. Open to all Readers.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates.

Rules.

(1) The subject of each photograph must be that announced for the particular competition.

(2) Each competitor can send as many prints as he likes, but each print must bear on the back the name and address of the sender, the title of the picture, and no other writing whatsoever. Each print must bear a coupon for the month, which will be found in each issue of the paper.

(3) No print must be mounted. No hand work other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute, the editor shall have the right to call for the original negative from which the entry purports to be a simple direct contact print. Enlargements are not eligible.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

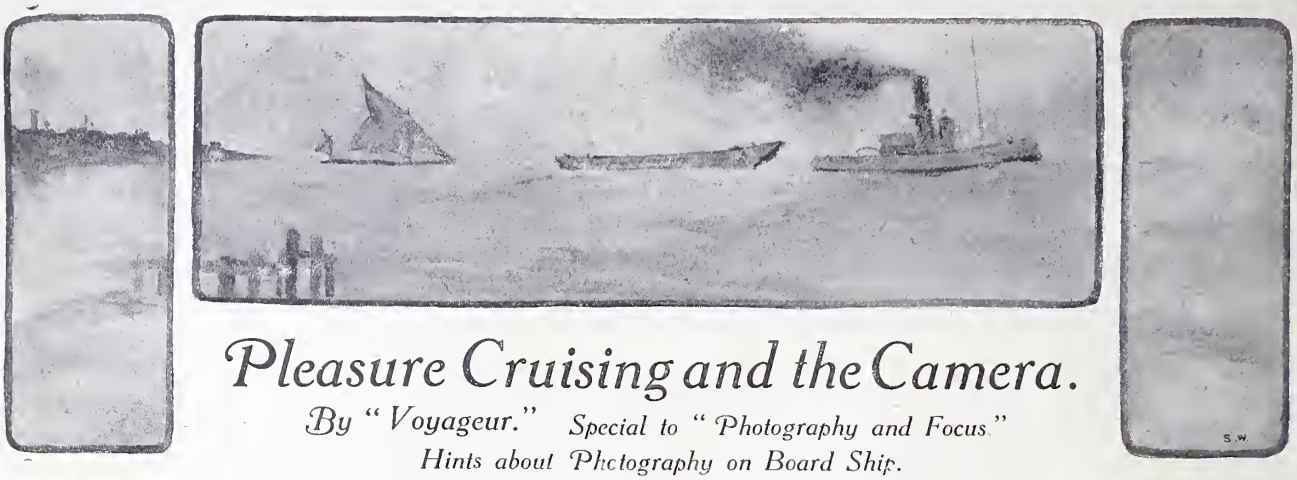
(5) The publishers of *Photography and Focus* shall have the right to reproduce, without payment, any of the prints sent in.

(6) All entries must be addressed "Special Subject Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date.

SUBJECTS AND CLOSING DATES.

A Sunset. Closes July 31st.
A Summer Landscape. Closes August 31st.
A Harvest Scene. Closes September 30th.
Woodland and Water. Closes October 30th.
An Indoor Portrait. Closes November 30th.

TO READERS ABROAD.—In the case of competitors abroad, the rule as to the date of coupons is relaxed sufficiently to allow them to compete.

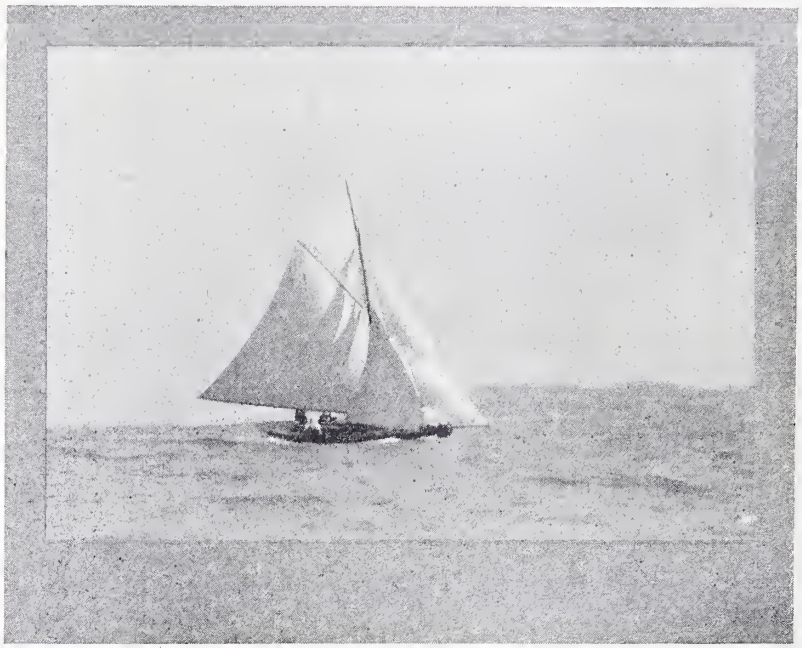


Pleasure Cruising and the Camera.

By "Voyageur." Special to "Photography and Focus."

Hints about Photography on Board Ship.

A FEW years ago comparatively few people thought of spending an entire holiday on board ship, but the practice is now one which is getting more and more common. It is fostered and encouraged by the big shipping companies, who now look upon the finest vessels of their fleets as none too good or too luxurious to be given over to the tourist during the summer months. It is a delightful way of spending a holiday, and of visiting foreign shores with a minimum of discomfort. The vessel is a floating home; the quantity of luggage taken has no limits within reason, and yet gives no trouble at all; while all the terrors of unknown hotels kept by people speaking unknown tongues disappear. One of the Norwegian or "Northern Capitals" or Mediterranean cruises, of which so many are now advertised, is as fine a way of spending a holiday as could be devised.



WITH SWELLING SAILS. BY F. G. PRIDEAUX.

Awarded the Bronze Medal in the Special Subject Competition, just closed.

Photography is, of course, very much in evidence on such vessels, where every other passenger carries a camera, and in a great many of them there is not only a dark room, but a photographer who will develop and print *en route*, or the barber or some other official acts as photographic dealer, and carries a small stock of plates and films. But the reader of *Photography and Focus*, it is to be presumed, does not wish either his developing or his printing to be done for him; and, if he is wise, he will see that his luggage includes all the plates or films that he is likely to require.

Although it may seem that the occupation of developing and printing would fill in the time during which the vessel is going from one place to another, the chances are that none will be done. Time does not hang on vessels of this class, and there is almost always something to interest or to occupy the holiday-maker. On the mail routes, on the other hand, where the boat is at sea the greater part of the time, it is often convenient to be able to make a few prints.

The official dark room, in the writer's experience, is better avoided, as it is in great demand, is often much more "dark" than "room," and is often abominably messy and dirty. This is not always the fault of those in charge of it, as I am afraid a good many who use such rooms do not put themselves to the trouble of clearing up the mess they make before leaving. It is therefore much better to extemporise a dark room in one's cabin—a thing which is usually extremely simple. A few dark-room pins and a yard and a half of ruby fabric, folded so as to make a double thickness, will turn the porthole into a "safe light" in a moment. When the porthole can be opened, even the pins are not required, as the fabric may be put across the opening and the glass just folded back on to it to keep it in place. There are some berths in almost every ship which have no porthole at all, but are right within, and are illuminated by electric light only. The conversion of one of these into a dark room is a very simple matter.

The "walls" of cabins do not usually extend up to the "ceiling," but stop short, allowing a ventilation opening, which for dark room purposes can be closed by laying a coat or rug along the top. It is well to have the top dusted first, as this is a part which is often overlooked in cleaning out. When this has been done, the cabin will be found to make a capital dark room for plate-changing purposes—an operation which can be best carried out in most cabins by sitting on the camp stool and using the lower berth as the table.

Developing on Board Ship.

It is not a difficult matter to develop a few plates or films on board. If the photographer uses roll film, and has one of the machines for daylight development, his task is very much simplified, but, even if he does not, he need be at no great trouble. The idea that fresh water is in any way



Some of the Entries in the "Vessel Afloat" Competition.

I. DRYING THE SAILS. BY R. G. F. BANKS.

II. LEAVING PORT. BY FRANK BOLTON.

III. LEAVING THE ANCHORAGE. W. CLIFFORD WARNER.

IV. THAMES BARGE. W. H. ROBINSON.

V. THE EVENING BOAT. HENRY WARNER.

scarce on a modern liner is quite a mistake. In the old sailing ship days it may have been the practice to serve out a pannikin of fresh water as the day's allowance; but for all the passenger on a big steamer to-day knows to the contrary, the fresh water might be obtained by a constant supply from the shore. It is laid on to his cabin wash-basin, whence he can draw at will just as much as he may want. On small vessels the supply may not be on quite so lavish a scale, but even then he does not as a rule experience much difficulty in getting all he may require. If he does there is always sea water, and for most photographic purposes

Sea Water will do just as well.

It is better to use fresh water for diluting the developer, as the salts in sea water act to some extent as a restrainer; but at a pinch even this might be regarded as not very important. For dissolving hypo and for washing the developed negatives sea water may be used just as well as fresh, provided at the finish the plates are given a couple of changes in fresh water, each lasting for about three minutes. It is not that the salts in sea water are likely to be directly injurious to the film if left in it, but only that they leave it strongly hygroscopic, so that the negatives would be continually in a more or less damp condition, and this would inevitably lead to their deterioration. For washing silver prints before toning, and for the fixing solution and for subsequent washing, sea water may be used, as it may also for the acid baths and washing in platinum printing, always remembering to give the last two rinses in fresh water.

For washing two or three negatives there is nothing better than the cabin basin. The tumbler is filled with water to steady it, and put in the middle of the basin, and the negatives arranged round it, leaning film side downwards, against the sides of the basin, which is then filled with water until the negatives are covered. If they are left like this for from five minutes to a quarter of an hour, and then the water is changed by means of the plug in the basin, taking care to let it drain out thoroughly, half a dozen changes will wash the negatives thoroughly.

Where there are a dozen plates to wash, this is best done in a rack, which may be placed in a bucket of sea water, the water being changed from time to time in the same way. But the development of a number of plates is not a task that is very often put in hand on board ship.

"That Queer Sort of Up and Down Motion,"

as the song calls it, is not likely to trouble the holiday maker very much. The routes of the tourist steamers are arranged so that as far as possible they may lie in landlocked waters, where the sea is not much more disturbed than the river between Kew and Richmond. The favourite voyage of all, the cruise along the Norwegian coast, except for the thirty-six hours' crossing from England or Scotland to Norway, is almost entirely in calm waters, where sea sickness on a big steamer is quite unknown.

One of the pieces of advice trotted out at times is that in photographing from a rolling ship the exposure should not be made when the vessel is upright, as the movement is then greatest, but when the roll is at its greatest, as there is always a pause before the downward roll changes to an upward one. As a matter of fact, this does not matter at all. As far as deck pictures are concerned, everything on the deck is moving with the ship, so that, if deck photography is possible at all, the exact phase of the roll would make no difference. If it is the sea that is being photographed from the deck, the exposure required is sure to be so short that the slow roll of a big ship will not make any difference at all. The lowest point of the roll should be selected for making the exposure in such a case, it is true; but not because of the motion then being at a minimum, but because one is then nearer to the water than at any other time, and the waves will therefore be rendered on a larger scale, and there will be less of that bird's-eye view effect. But if the weather is bad enough for the rolling to be excessive, photography is not likely to figure largely in the passenger's occupation.



Ships and the Camera.

By Fred Wright. *Special to "Photography and Focus."*

THERE is no more favourite subject for the amateur photographer than a ship, and he does well to select it, for few things made by man are more beautiful in their lines, and in the adaptation of means to ends. Besides this, ships are tempting subjects, as they are usually fairly easy ones, and a very large number of the readers of *Photography and Focus* will doubtless be exposing on them in the course of the next few weeks. A few suggestions, therefore, may be found useful.

The first subject to be considered is the standpoint selected. If we intend to photograph a ship afloat the beach will not be suitable. It does very well for snapshots of hauling up boats, of vessels left by the tide, of boat building or repairing, launching, and all the other incidents that are connected with the shore; but when once the vessel is fairly afloat we shall find that, unless we are the proud possessors of a tele-photographic lens, the ship's image on the plate will be altogether too small. If we have a very good lens and get a critically sharp picture, we may make an enlargement from just the middle of the plate, but if it is to be printed by contact it will not be satisfactory.

A pier or jetty makes an excellent standpoint for work of this kind, especially if it is a harbour mouth which is passed by a good many vessels. The only drawback is that sometimes it is not possible to get low enough at a pierhead to get the best effect. Where we want to be is about six or eight feet above the water for choice, as this elevation suits most of the subjects which we are likely to encounter.



IN EARLY MORNING LIGHT. BY A. W. WALBURN.
Awarded the Silver Plaque in the Special Subject Competition, just closed.

The fault of too high a standpoint is that we seem to be looking down upon the deck of the vessel—we may even have the horizon line well above it. Such an arrangement shows at once that the standpoint was a high one, and destroys the suggestion of the vessel being out at sea, which one would often be glad to have. The high standpoint seems to indicate that the picture was taken from a cliff, or at least from some shore point, so that if we can get a lower one all the better.

Of course, our high standpoint might have been the deck of some big steamer, and the vessel photographed one that was actually in the open sea, but the photograph would not suggest this, and it is the suggestion that we want. The deck of a small steamer such as those that ply round our coasts makes an excellent standpoint for work of this kind, and is usually of the right height. The principal trouble is that if there is a view of the vessel that we want, the steamer's course is almost sure to take her some other way. Besides, when photographing passing ships from a steamer one has to be very quick about it if more than one view is wanted. On the whole, the pierhead is about the best place for such work.

The best aspect of a vessel to be photographed will depend very largely on the surroundings, but there is one position which is almost invariably unsatisfactory, and that is broadside on. Quite end on, whether it is the stern or the bow which is turned towards the camera, is almost but not quite as bad. Almost end on, with the vessel com-

ing towards the camera is often very effective, as the white water where she cuts it gives a patch of brightness against the dark hull, and helps wonderfully to give the sensation of motion. But these are often matters where the amateur cannot pick and choose, and must be content with taking the best that offers itself.

The vessel should, if possible, occupy a fair share of the plate—anything in length from a sixth to a third of the plate is permissible, but if it is much larger than this it will seem to fit the plate too closely, and this gives an unpleasant suggestion to the picture. Instead of realising how beautiful the lines of the vessel are we are apt in such a case to be struck more by the good luck of the photographer that he should have just got it in. So plenty of space should be left all round. But we must guard against getting the vessel exactly in the middle of the picture. That, too, is unsatisfactory. It is better, also, to show more open space before the vessel than behind it; that is to say, it should appear sailing or steaming into and not out of the picture.

Beautiful as a vessel is, it will hardly ever make a satisfactory picture by itself. The trouble is that from the distance at which it is photographed it will be too much in one plane, and in our picture we must have foreground, middle distance, and distance. The foreground, or fore-water if we are to be precise, should be more than a mere expanse of rippled water, and if we can get it broken by a buoy, or a group of piles, or some other appropriate object, all the better. If not, perhaps there may be the wash of a passing boat to form a mass of white froth. or if the water is very calm the reflection of the vessel may come down a long way in the picture. A mere stretch of water dotted all over with little spots formed by waves may be beautiful to the eye, but it will be most uninteresting and disappointing in the photograph, even if the ship itself is most beautiful.

If the vessel itself forms the foreground, which it will not often do, then something in the distance becomes very necessary towards picture making. It may only be a cloud, or the sun much obscured, or some vessel, light and airy in the haze of the distance, but something of the sort there must be. But here again we must be careful not to get a regular succession of distant vessels, such as a fishing fleet sometimes presents. As a rule, they are all too much alike and too evenly spaced for picture making, although they may be right enough for fishing.

This must seem a dreadfully severe and exclusive list of conditions, but judged by comparing them with successful shipping pictures, it will be seen that it has a practical basis. The amateur may say that the conditions are so severe as to be prohibitive, but this is not so. Granted he cannot go to some place where he will find ready-made pictures every hour of the day, if he could the pleasure of photographing them would very soon pall on him, and he would be seeking some other hobby. But there are few seaside resorts where there is not some coign of vantage from which shipping pictures may be made at times, and if not at all times, there is nothing in this article to suggest that he should not expose some of his plates on subjects which will not make pictures, if it will please him.

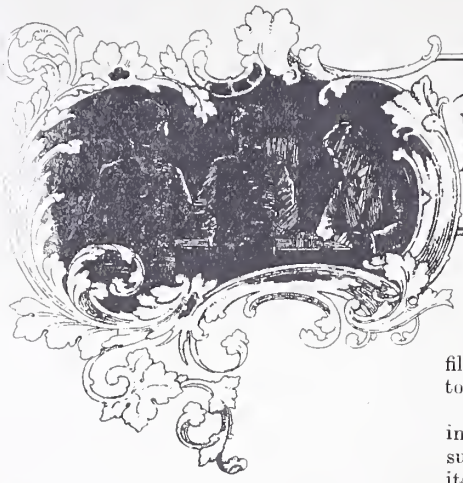
The actual materials of which a picture is built up may be of the most diverse nature. The idea that it needs a fine ship to make a fine picture is altogether a mistake. A noble vessel under altogether exceptional circumstances may make an extraordinarily effective picture, as witness the results obtained by some of those fortunate photographers who witnessed the departure of the *Mauretania* from the Tyne. But the most misshapen and dilapidated old coal hulk may serve our purpose if we realise its possibilities aright. The column of smoke from a grimy tug, with perhaps a touch of white steam against it, may be the basis of a picture that would be welcomed at the R.P.S.

In spite of what has been written in the previous paragraphs it must be admitted that racing yachts furnish perhaps the most ready and valuable material for the picture-making photographer that he can wish. This is due to the fact that their huge expanse of white sail, taking the most beautiful curves imaginable, affords a mass of light which is often exactly what is wanted, particularly if it can be got so that the sunshine on the sails shows their form, or their "modelling" as it is defined in a most interesting article in the current number of *Photography and Focus*.



ENTERING HARBOUR BY C. D. PATON.

Awarded the Bronze Plaque in the Special Subject Competition, just closed



DARK ROOM DIALOGUES

PUNCTUALLY at the appointed time Oliver and his friend appeared at Lawson's house. Oliver had brought a draining rack, and the sunburnt man had brought a couple. Lawson led the way to the dark room, expressing his gratitude afresh at the trouble they were taking on his behalf.

"Precious little trouble, as you will see," growled the sunburnt man.

"I have bought some backing," said Lawson, as he put a collapsable tube of it on the table, "but I have not got a brush to put it on with."

"I always put mine on with a pad," said Oliver. "It gets it on quicker, and does just as well."

"I buy my plates ready backed," said the sunburnt man, "and so do without brush or pad. You will want a light-tight box, Lawson—a trunk if you have one—it can hardly be too big, as we shall want it to hold all the racks with the plates in them, so as to give them a good chance to dry before packing them up again."

Lawson vanished for a few minutes, and then returned hauling in a large cabin trunk, which he declared was the biggest thing of the sort they had in the house. "The worst of it is, though, I am not quite sure about it being light-tight," he added.

"Never mind; we can throw a rug over it."

It was arranged that the sunburnt man should open the boxes of plates and hand them singly to Oliver, who would do the actual backing. Lawson was to take each plate as it was backed and stand it up in the rack for the backing to dry.

"Have you got such a thing as a printing frame?" asked Oliver, who was busy tying up a ball of cotton-wool in an old kid glove to make a pad.

Lawson produced one immediately, but asked what it was for.

"To hold the plate while I back it," said Oliver. "You had better take the springs off; they are soon put back again, and will only be in the way. And while you are about it, I should tack a piece of cardboard over the front of it; it will keep one's fingers off the film, and keep any light off, if I happen to hold the frame up."

Lawson did what was required, and in a few minutes all was ready. The sunburnt man turned the lamp with its face to the wall, from which it was a few inches distant. "When we have been in the dark for a minute or two," he remarked, "we shall be able to see what we are doing well enough, and we don't want to run any risk of fogging the plates. A little light now will do much more harm to them than it would when they are being developed."

"Why is that?" asked Lawson. "Surely they are just as sensitive then as now."

"If they were orthochromatic plates," said the sunburnt man, "they would not be as sensitive after they had been in the developer for a minute or two, as they are before they are wetted."

"But these are not orthochromatic," said Lawson.

"I know. But it is not a question of sensitiveness. Any light action that takes place in the plate before development is developed as fully as the exposure itself; the developer acts upon it for the whole time of development. But if the plate is only light fogged when half the development is over, the fog only has half the development of the rest, and, of course, the less development there is to be given the less harm the fog will do. It is not a reason for carelessness, but it explains how one man can get clean negatives with a light which is quite unsafe in the hands of another. But let us get on with our work."

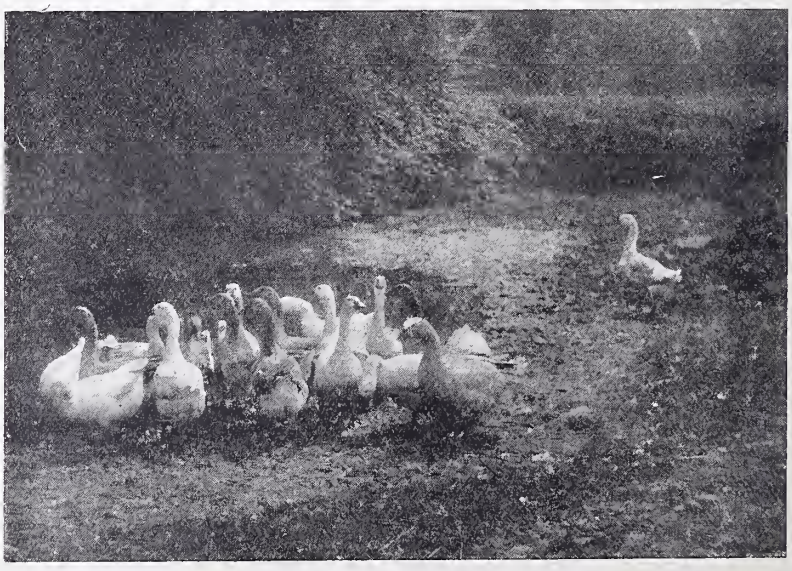
For a little time not a word was spoken in the darkroom. The plates were unpacked and handed across to Oliver. He had squeezed out some of the backing on to a sheet of glass, dabbed it over until it formed a fairly even coating, and with this as a palette, picked up some backing on his dabber, smeared it over the glass side of the plate which was put film downwards in the printing frame for the purpose, and then turned the frame over so that the backed plate fell into Lawson's open hand. The latter then had nothing to do but to put the plate in its place in the rack.

"Hullo!" said Lawson, when this had been going on uninterruptedly for a little while.

"What's up?" enquired Oliver.

"You are putting precious little backing on, and what you are putting on is not at all even."

"The evenness does not matter at all," said his friend. "As long as the



Geese. *By Jas. Bewick.*

whole of the plate is smeared over, whether the coating is even or not makes no difference. And a very slight smear is all that is needed."

"Besides," put in the sunburnt man, "you forget the backing is red, and in the red light it looks much less than it actually is. If you took one of these plates out into daylight, you would see that there is a great deal more on than you think."

"I had forgotten that," said Lawson. "Sorry I spoke. But anyhow there is much less than they put on the ready-backed plates that you buy."

"They are machine-coated, and as it is important to get the backing all over them, and as backing itself is not a costly composition, they put an ample layer on to make sure. At least, that is my explanation," said Oliver.

"You are not putting a plate into every groove in the rack, are you?" he asked.

"No, only in every other groove. I thought they would dry quicker that way."

"True."

Many hands make light work, and it was not long before the sunburnt man handed a plate to Oliver with the remark, "Finis." Lawson had transferred each plate rack, as it was filled with plates, to the cabin trunk; and as there were more plates than the racks would accommodate, leaned the rest up, film side towards the trunk, all round inside it. He now shut the lid down, covered it over with a rug to make sure it was light-tight, and lit the gas.

"What I suggest now," said the sunburnt man, "is that we clear up all the backing and stuff, smooth out all these wrapping papers and boxes ready for repacking the plates, and then go down and have a smoke and a chat for an hour or so. This will give the backing time to get well dry, and it will not take so long to repack the plates."

"How do you propose to do it?" enquired Lawson. "We shall never be able to get them back as neatly as they were sent out by the makers."

"Perhaps not; but I do not think we need trouble about that."

"What, I wonder," observed Oliver, "is whether the backing will be quite dry to-night by the time we want to start the repacking. There is not much air circulating in that trunk."

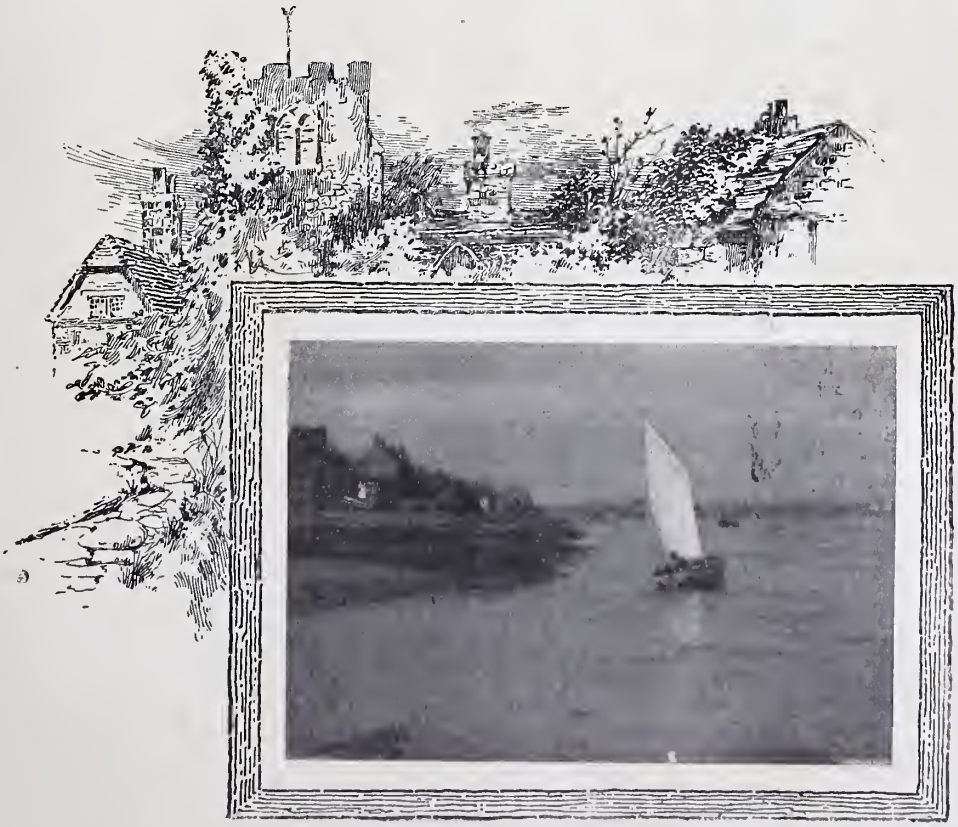
"Whether it is, or is not," said Lawson, "I suggest we cut some clean papers the size of the plates, and put one in between every two which come back to back. That is what the makers do; and I have got some filter paper, which ought to be pure enough, and the right thing for the job."

This was agreed to, and the backing incident, before the evening closed, was *un fait accompli*.

Two Hints for Travelling Photographers.

THERE is one thing which I propose never to attempt to do again, and that is to change plates under the bedclothes. For two reasons. One is that it is a most suffocating and unpleasant operation, and the other is that it is quite unnecessary. Nor is there any need to carry away a lot of brown paper and dark-room pins in order to block up a window to turn a bedroom into a dark room. If it is daylight, a satisfactory dark room cannot, in my experience, be rigged up with pins and brown paper. If it is night there is no need to block up the window at all. Starlight, moonlight, lamplight may be allowed to stream in without the slightest fear that the plates will be fogged, if the very simple precaution is taken of turning one's back to the window, so that the direct light of the lamp or moon does not shine on the plates. There may be plenty of light to see what one is doing, after having been in the room for a minute or two; but although I use the fastest plates I can buy, and change them deliberately enough, I never get the slightest sign of fog from this cause. An arc lamp just outside might be dangerous; but arc lamps are not common just outside bedroom windows, and even then the blind and curtains should be sufficient. I never could understand why the writers years ago used to have so much to say about darkening a window for plate changing at night, unless it is that plates were faster then, or nights lighter. Neither of which is likely.

The other travel hint I wish to write is about taking developer away. I always carry a little rodinal for developing trial exposures, but I do not risk developer in an ordinary bottle in a Gladstone bag when on a journey. The rodinal is carried in one of those little bottles with a fountain-pen filler and a wooden case which are supplied by the Swan people full of ink, price a shilling each. When the ink is all used, the bottle and filler are thoroughly washed out and filled with the rodinal. There will be no fear of the bottle breaking or of the cork leaking, as the wood case acts as a protection against both; and the filler makes an excellent measure for small quantities of the liquid.—H. LIGHT.



Cheap and Simple Gum Bichromate.

By C. J. Smith. Special to "Photography and Focus."



THE oil process seems to have put gum bichromate into the shade for the time being, but there are those workers—and the writer is one of them—who hold that this is only a temporary phase, and that there are features about gum bichromate which will give it a lasting character amongst the methods of photographic printing. It is not only an extremely effective process, giving prints with plenty of delicacy and gradation when required, but is also extremely cheap. This being so, I am surprised more amateurs do not try it. Perhaps they are deterred by the reputation the process has got, which it does not deserve, of giving toneless crude prints with a grain like cocoanut matting. If there be any who are holding back on this account, let me ask them to try the method on the lines I propose to lay down very briefly in this article, and see for themselves that this is not so.

The first and most important thing in gum bichromate work is the selection of a suitable paper. Many have taken a prejudice against the process for no other reason than that they selected too coarse and insufficiently-sized a paper for their first attempts. A paper I have found to work excellently is the cheap drawing paper, costing a penny a sheet, sold at artists' stores. It seems to be of no particular brand or make, but has always worked excellently. I buy half a dozen sheets at a time, and, as a preliminary measure, size them. This is done by taking a quarter of an ounce of cooking gelatine, soaking it in cold water until quite soft, and then pouring on to it about a pint of hot water. As soon as the gelatine is dissolved, it is applied to the face of each sheet with a sponge, while still hot, and the paper is then pinned up to get thoroughly dry, when it is put away until it is wanted for use.

The sensitiser is made of two solutions. One of these is an ounce of potassium bichromate dissolved in ten ounces of water. The other is an ounce of ordinary lump gum arabic over which three ounces of water have been poured. In a few days the gum will have dissolved, and the solution may be strained through a piece of cambric into a bottle. A tube of ivory black moist water colour completes the materials. A piece of paper being put in each scale pan, a dram weight is put in one and about that weight of the moist colour is squeezed into the other. It is not easy stuff to weigh, but accuracy is not important in this case. An ounce of gum solution and an ounce of the bichromate are mixed together, and the pigment is incorporated with them on a piece of glass, using an old and very thin table-knife in default of a palette knife.

The paper is pinned to a board, and a very thin coating of this mixture is brushed on to it. For this purpose I find a sash tool is a capital brush, but for years I used an old bristle shaving brush. The brush strokes should be quick and light, first in one direction and then at right angles. The paper when coated must be nothing like black, merely a kind of grey-olive tint. The brush marks will show slightly (if they go out, too much of the mixture has been used), but when the print is developed they will disappear almost entirely.

The paper is coated by artificial light and dried by the same, or in the dark, and is ready for use at once. It is well to treat a few strips of the paper with plain bichromate solution, and to put a strip of this out under a similar negative to gauge the depth to which to print. The detail should be clearly visible, even in the high lights, on the plain bichromate paper, but one or two trials will show better than any written instructions can do how far to print.

After printing, the paper is pushed gently under the surface of some cold water in a dish, and left a minute or two to make sure there are no airbells on it. If there are, they can be broken by touching them, but not the paper, with a match. Nothing, from first to last, must touch the front surface of the paper until the print is finished and dry. After a minute or two in the cold water, it is taken out and allowed to float face downwards, breaking any bubbles on the back in the same way. It is then left for an hour or so, longer if necesary, to develop automatically. When development has gone as far as seems necessary, it is taken out and pinned up to drain and dry, and the print is finished.

There is no control in this method, little or no opportunity for dodging; but these are things that may well be left to come later, when one can make a straight print satisfactorily every time. It is curiously easy, and very fascinating. So I say to my fellow readers of *Photography and Focus*—try it.



MAKING FOR PORT. BY E. F. GILBERT.

Awarded a Certificate in the Special Subject Competition.



Some Prints from the "Vessel Afloat" Special Subject Competition.

1. "On a Sunlit Sea." By A. E. Cogdon.
2. "With Square Yards." By Lieut. C. McCulloch, R.N.
3. "Summer Haze." By Chas. F. Cogswell.
4. "Homeward." By F. G. Prideaux.
5. "Evening on the Wear." By R. G. F. Banks.
6. "The Mauretania." By Ernest G. Hails.



Marine Work.

Some Notes on Materials and Apparatus for Seaside and Marine Photography.



By H. Butt.

Special to "Photography and Focus."

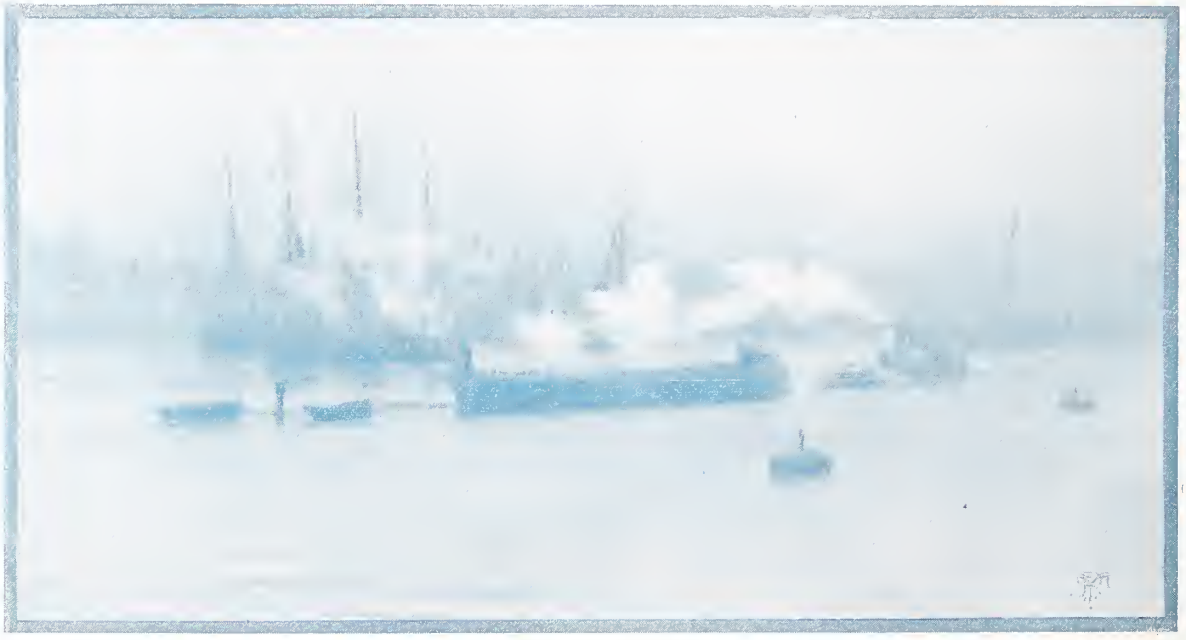
DOES marine photography differ from inland work sufficiently to call for the use of any special material, or will the photographer who has been making landscapes during the summer, and finds himself at the seaside for a holiday, do wisely to use the same plates or films for both purposes?

There is no very great advantage, at least not a noticeable one, in employing orthochromatic plates for seaside work. The colour of the sea is not one which is rendered unsatisfactorily by an ordinary plate. In fact, in this respect the average marine subject is far less likely to be the better for treatment on an orthochromatic plate than other forms of landscape work, where the greens of grass and foliage have to be dealt with. For wave pictures the ordinary plate seems to serve just as well as the orthochromatic. The prevailing fault in snap shots of breaking waves is the intense blackness of the wet rocks, but this is usually due to under-exposure, and when the plate has been sufficiently exposed, the rendering is generally true enough.

Roll film is very suitable for marine work. The "Kodak N.C.," which is also orthochromatic, has answered very well in the writer's hands, and its characteristic freedom from halation is a very good point where there are so many subjects in which there are dark details shown against a bright sky, such as the spars and rigging of ships.

There is one point on which a word or two of caution may be given, and that is on the packing and repacking of sensitive materials. There is something in the sea air which seems to have a marked tendency to make them spotty, if they are not properly protected against it. This is not usually troublesome at seaside places, at least the writer has not had any experience of it in such circumstances; but if the plates are taken on a voyage, and are exposed on board ship, the spots are very likely to be met with. Some plates put into a magazine some two or three days before the end of a voyage, and developed as soon as they were taken ashore, were very badly marked from this cause. The best protection seems to be to put each box of plates in two or three wrappings of waxed paper, unless the makers themselves protect them in this manner. The "Ilford" plates might be mentioned as being particularly well packed. They require no additional wrapping for a sea voyage; but the waxed paper in which each group of four plates is enclosed should be carefully unwrapped, so as not to tear it, and used to wrap them up afterwards.

Sensitive materials are not the only things for which the sea air is injurious The bright metal work of the camera soon looks very tarnished if it is exposed to spray or damp. A little vaseline seems to be as good a protection as anything. Sea spray is particularly harmful in the case of metal diaphragm shutters, such as are now so common with cameras of the folding type; and it is not easy to protect them. An efficient if awkward way is to tie a piece of oiled silk over the lens, bag it loosely over the shutter, and tie it behind. It is not difficult to work the shutter through this, and it certainly protects it.



Keeping the Channel. *By M. R. Tozer.*

Announcement







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A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

"SHIPS Afloat" was the subject of a competition a little time ago, and, in consequence, my desk is covered with prints answering more or less to that definition. The great majority of them might be said to be successful. But the theme is easy.

Such pictures as "In the Harbour" are ready-made, or nearly so. The boats are themselves pictorial, in the first instance. The shape of a boat is one of the most beautiful things man has devised; it is one of the few of his purely utilitarian designs whose lines are entirely graceful. Compare the lines of a boat with those of a motor car, for instance. But I am wandering from the point.

Groups of boats in a harbour are, I say, often a ready-made picture. The presence of the water completes an already promising motif by creating reflections wherewith to form an interesting foreground. Armed with a hand camera one may use up a dozen plates in as many minutes in any average harbour of this sort, and obtain twelve "pictorial" results.

I have put that word "pictorial" in inverted commas here, for I want to suggest dubiety about those results. Somehow they are too slick to be quite convincing. Is this representative print which I have chosen, "In the Harbour," really pictorial, or is its pictorialism only superficial? I think the latter.

It is just ready-made stuff, recorded literally by the camera, and inasmuch as the literal statement of the facts happens to be pleasing to the eye we may momentarily be deceived into thinking this an example of "art," whereas it is a mere specimen of correct exposure, development, and printing.



In the Harbour. *By Stanley J. Milner.*

What, then, would have been different had an "artist" treated this same theme?

The question is a fair one, but hard to answer. My own idea is that what I may call a "big" artist wouldn't have



On the Wear. *By R. G. T. Banks.*

expended a plate on this at all. He would have seen that there was too much subject, too great an overdose of details, pretty in themselves, but, by their number, tending to scatter the interest, indeed actually to confuse the whole issue.

Mark the quantity of lines, of different sorts, which straggle about over this picture. Had they all been vertical, as are the reflections, they might have been pardoned, as an example of judicious repetition. But even those which are vertical (approximately) are not parallel; there are the angled lines of the quay supports; there is a line at the left hand bottom corner, which is, I suppose, the lip of the quay, but which is quite meaningless as it stands, and the very reflections of the masts seem to converge improperly. But there are (more or less) horizontal lines, too; the curving rope, for instance, which stretches from a boat to the quay; a white roof behind the steamer on the right—and the steamer itself is rather an intrusion—and so on.

One is too tempted to examine into the minute fussy details of this picture really to be able to enjoy it quietly. At first glance it pleases. But it is not a stayer. And though quite a fair example of technique, it is too obvious, too easy and muddled and lumpy, to pass muster as a pictorial work.

WHEN ONE IS EQUAL TO FOUR.



Taken with the 6in. Doublet.



Taken with the 9¼in. Single.



Taken with the 11¾in. Single.

Illustrations showing the sizes of images given by the three foci obtainable with a 6in.

GOERZ "PANTAR."

(No. 8, of 6in. focus, a combination of two singles, 11¾in. and 9¼in. foci).

Reduced from 5 x 4 plates.

The three illustrations all taken from the same standpoint.

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Away to the Southard.

Harbours are, in short, a delusion; or at any rate a temptation to waste plates. Still, either thanks to skilful photography or to the presence of mist, their minutiæ can sometimes be subdued so as to throw up one principal object and thus make a picture. "On the Wear" is almost a case in point. The ship being towed either to or from her berth is well isolated from its background—and a good thing too, for that background, scrutinised closely, reveals itself as ugly and banal.

But pleasing though the print is, compared with "In the Harbour," it suffers, to my mind, from the fact that it tells only half a story instead of a whole one. The cable, stretching to the tug, of whose stern we catch a glimpse on the right, leads the eye tantalisingly away out of the frame. One wants to see that tug. The story of the tugging is only half here, and is cut off short where that cable disappears. Ugly though the tug may be, I think it should have been included. Although—fate is ironical—if it had been included the print might have lost any claim to pictorialism it now possesses, for the composition, such as it is, would almost certainly have been destroyed.

In "Outward Bound" (reproduced on page 69) we have another harbour or dock subject where the interest has been successfully concentrated, thanks to the isolation of the chief object, the barge. Had the water here been crowded with vessels the barge would not have stood out as it does. The high key of the distant dock wall, steamer funnels, and warehouse, is also very effective, and is quite a little sermon on the occasional advantage of the use of a flat lighting.



A Misty Sunset.

"Unemployed" I am bound to say I prefer to the commonplace "In the Harbour." It has an idea in it, though I honestly believe it to be a mistaken idea. Such extreme fuzzifying means loss of outline, of meaning, of everything that counts. We note only the fuzziness and miss the picture. Our attention is so taken up with its eccentricity that we have no mind for its beauty—if it has any.

This, the author may retort, is our fault, not his. Well, maybe so. But I think that in a year or two this impressionist will have found that impressionism can be attained while sticking to the real firm world of solids instead of flying to a realm where



Unemployed.

ships, sea, and clouds are all made of the same impalpable and edgeless stuff of dreams.

In the open, where there is no harbour background, no competing interest of other shipping, what beautifully isolated and simple ship-pictures are to be obtained, for those who can "get there!" Turn to "Away to the Southard," and compare its breezy freedom, its concentration of interest, with these fussy port scenes like "In the Harbour," "On the Wear," and the rest. The very water is lovelier, cleaner, more refreshing-looking, with its honest waves and foam, so different from the oily mirror within dock walls. The one fault is the intruding trail of smoke on the right; it strikes a jarring note by throwing doubts on the apparent loneliness of the scene.

"A Misty Sunset" seems to have been taken from a higher level, and this shows the boat with the horizon above it, an effective enough arrangement, for a change, but one which inevitably suggests the near presence of the shore and of cliffs or a pier. The title is hackneyed and the picture itself is not very notable, but I reproduce it as another example of successful and unambitious simplicity. Any other vessels in the panorama of ocean, and the interest would have been scattered, and such impressiveness as it has would have been frittered away.

Make your prints in daylight with "Ensyna"

You can produce prints so quickly on "**Ensyna**" that you will wonder why you never adopted the "**Ensyna**" method before. Load the frame in subdued daylight, hold it up to the window for a second or two. Then develop your print on the shady side of the room with your back to the window and fix it for 30 seconds. That's all. Not more than 2½ minutes taken up from start to finish. The washing is equally short, too. Two minutes in running water is ample—quite enough to ensure permanency. You can have another print exposed, developed, fixed, and finished by the time the first one is washed, and so on till the batch has been done.

IMPORTANT NEW INTRODUCTIONS.

We have great pleasure in announcing the introduction of three new grades of "**Ensyna,**" which are now obtainable through photographic dealers. These introductions are:

VIGOROUS "ENSYNA" (Matt).
VIGOROUS "ENSYNA" (Glossy).
CARBON "ENSYNA" (a new surface).

Those who tried "**Ensyna**" when it first came out and found that it took longer to develop than they anticipated, should especially note the fact that **with the new paper the time of development is reduced considerably.** With the new paper we say definitely that **if the development takes longer than 1½ minutes the print is under-exposed.**

This new paper **gives brilliant prints from thin negatives and soft prints from hard negatives, takes much less time to develop, has greater latitude of exposure, and consequently it is more difficult to over expose.**

We particularly recommend the new carbon surface, which is neither matt nor glossy, but possesses characteristics of both. **Carbon "Ensyna"** gives delicate detail, and transparent lustrous shadows with bright, clean high-lights. It is eminently suitable for either large or small contact prints.

On Carbon "Ensyna" all the beauty of a wet print is preserved permanently. The richness does not dry out.

SPECIAL SAMPLE PACKETS.

Every reader of *Photography and Focus* should test the new "**Ensyna**" and prove its really remarkable qualities. The sample packets complete with developer can be obtained from Photographic Dealers everywhere at **6d.** for the quarter-plate size, or **1/-** in half-plate. These samples can be sent direct by post at **7d.** and **1/1** respectively.

Contents of the Special Quarter or Half-plate Sample Packet of the New Vigorous & Carbon Grades of 'Ensyna.'

4 Sheets Vigorous "Ensyna" Glossy. 2 Sheets Vigorous "Ensyna" Matt. 4 Sheets Carbon "Ensyna" (the new surface). 1 pair of Ensynoids to make 5 oz. of Solution (sufficient to develop the above paper).

These Samples will not be issued by the manufacturers after 31st August, 1909.

HOUGHTONS LTD.

88/89, High Holborn, London, W.C.

ENSIGN N TRADE MARK



Some Stray Notes on Yachting Subjects.

By Evan McGowan.

Special to "Photography and Focus."

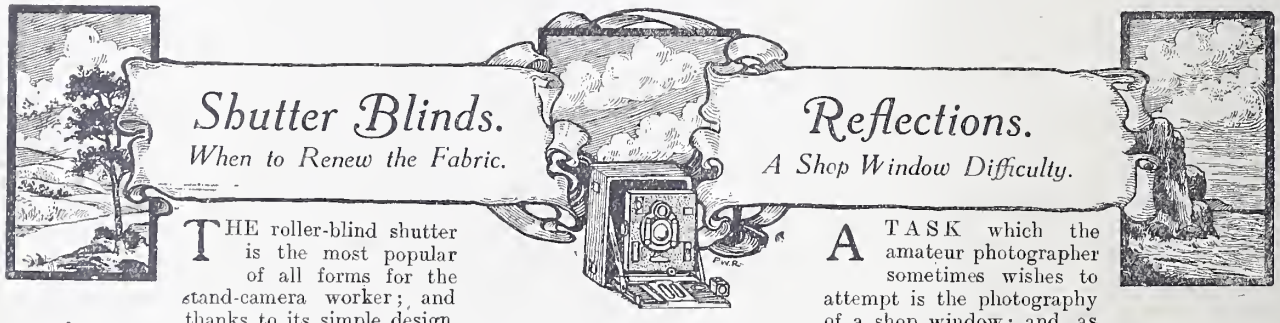
YACHTS are of all craft the most generally picturesque, and no photographer can witness a yacht race without a desire to photograph it; yet the photography of racing yachts is a difficult branch of work, and calls for a great deal of patience and skill. The lens in the ordinary quarter-plate hand camera is of very little use for this work. Even the back combination of its lens is too short in focus to show the vessels on a reasonable scale. Fifteen or eighteen inches will be found a convenient length for a 5×4 plate, and if an old rapid rectilinear of this focus can be picked up comparatively cheaply it is a very suitable tool for the purpose. It should have its hood lengthened, not only to cut off as much as possible of the light which it otherwise will direct upon the bellows of the camera, but also as a protection against spray.

The exposures required for yacht photography are not any great difficulty. Although the vessels may be moving rapidly, the image on the plate does not move very fast, and, if one felt disposed, excellently exposed pictures could be got on quite slow plates. My own preference is for very fast iso. plates, as these seem to give softer and more harmonious results than any others. They are particularly valuable when taking white sunlit sails against a deep blue sky. The ordinary plate renders both of very much the same tone, and so robs the picture of a great deal of its beauty. It is certainly advisable, whatever plates are used, that they should be backed.

Under-exposure is to be avoided, and the photographer must guard against exposing for what the exposure tables describe as "sea and sky," or he will get it. The clouds may be very beautiful, but the subject of the picture is the vessel, and if this comes out as a mere black mass against the distant sea and sky the result is a failure. A thirty-second of a second at f/16 will generally be found about right, and is better than one-fourth that exposure at f/8, as the smaller stop gives some guarantee against focussing errors.

The focussing is done by scale, and, as distances across water are very misleading, it would be difficult were it not that for the great majority of subjects the lens may be focussed for infinity and left at that. The exact point at which to put the infinity mark should not be that at which the extreme distance is sharpest, but is found by focussing the distance and then racking in the camera until the utmost fuzziness that is allowable in the extreme distance has been reached. With an 18in. rectilinear stopped down to f/16, it will be found that in this way it is possible to get in sharp focus everything that is more than about thirty yards from the camera, and for most yacht work this will be all that will be required.

The exposure is best made by pressing the pneumatic bulb between the teeth, as suggested by Mr. Beken in an article on the subject in *Photography and Focus*. This leaves both hands free, and two hands are none too many to manipulate a camera and keep their owner upright in a little boat in a choppy sea.



Shutter Blinds.

When to Renew the Fabric.

THE roller-blind shutter is the most popular of all forms for the stand-camera worker; and thanks to its simple design, and to the good workmanship which is usual in it, there is no part of the photographer's outfit which is less likely to get out of order. But the material of which the blind is composed is not everlasting, and there comes a time when it begins to show signs of wear. These signs take the form, at first, of one or two pinholes.

Little or nothing is gained by attempting to stop up pinholes in the blind. A little patch of thin black court-plaster will make a temporary repair; but the first pinhole should be taken as a warning that the blind is getting worn out, and no time should be lost in sending the shutter back to the makers to be fitted with a new blind. Because that solitary pinhole is not likely to remain solitary long, but will merely be the precursor of innumerable others, such as to be quite beyond the power of patching to remedy.

The advice is given to send the shutter to the makers, both because the replacing of one blind by a new one is an operation which needs to be very carefully done, if the shutter is to be as good as ever, and because the material of the blinds is a special fabric not easily bought.—W.I.L.

Reflections.

A Shop Window Difficulty.

A TASK which the amateur photographer sometimes wishes to attempt is the photography of a shop window; and, as sure as ever he tries to do this, he finds himself in trouble with the reflections in the glass, and wonders how they are to be avoided. There is very little that can be done beyond the selection of the best standpoint and of the most favourable time for the work.

The standpoint is governed by the nature of the things reflected. We have to remember that "the angle of reflection is equal to the angle of incidence," and, remembering this, it is not difficult to find the place where the reflections will give least trouble. If it is the sky that is reflected, it can generally be dodged by selecting as high a standpoint as possible, lowering the front of the camera if necessary. If there is some very bright object to one side of the window, we can get rid of it by taking the photograph from that side.

The most favourable time is, of course, when the sun is shining on the shop window, but not so as itself to be reflected into the lens, and the objects opposite the window are in the shade. A single bright object may sometimes be covered up for the time of photographing.—Cyril Yoft.



WELLINGTON

CARBON

P.O.P.

From a Negative on a "WELLINGTON" SPEEDY PLATE.



"The time has come, the Walrus said, to talk of many things."

NOW and again I pluck from a huge pile, or rake out from the depths of a pocket, a sheaf of letters, postcards, and cuttings which readers have sent me, and when I look at the dates on some of them I blush. I will not attempt to make any excuses for my neglect. Procrastination is one of my multitudinous faults. Over and over again I resolve that "next week" I will wipe off a batch of these arrears, and next week I sit down and launch forth into a page of gross imbecilities. It is so much easier. But to-night I feel in a chastened and business-like mood, due I believe to smoking cheap and villainously strong shag, and I am about to tackle one or two of these odds and ends.

* *

Virtue is at once rewarded. No less than three of the letters refer to the same subject. Three birds with one stone. They draw my attention to an advertisement in this paper which I had already noticed with respectful admiration. It demanded the sum of £4 for a half-plate outfit weighing half a hundredweight. This works out at just over a penny an ounce, whereas one dealer is making a big song about a camera for which he is asking nineteen shillings an ounce. I have no hesitation, however, in claiming that the record for price for weight in photographic apparatus is held by myself, as I have just joyfully parted with an outfit that (estimating from memory) must have worked out at something like fourpence a ton. It was supposed to be a hand camera, and the wheels of the pantechnicon in which it was placed promptly became elliptical in shape. It was a good camera and heavy, if not cheap, at the price.

* * *

The next letter makes me rejoice that the "Dark Room Dialogues" have been resumed, as the writer more than hints that I was responsible for the disappearance of the omniscient sunburnt man and his erring colleagues. This is a most unjust accusation, as I loved the solarised gentleman as a brother, and would not have damaged his tanned cuticle for worlds. The writer goes on to say, "Had it been the Bandit who disappeared I could understand it, for you fairly catch him bending upon occasions." I do not profess to understand this cryptic utterance, and I can honestly say that if ever the Bandit has departed from the rectilineal I have never had the pleasure of catching him in that condition. Even if I had, I should have hesitated to take advantage of his temporary curvature, as he would certainly retaliate by criticising my print when I enter the beginners' competition.

* * *

Next to claim my belated attention is a postcard which purports to come from a demoiselle of Rouen, but of the genuineness of which I entertain gravo suspicions. Strangely enough, this contains the expression, "Monsieur Bandit, ah, *celui-là, il est terrible!*" To which I hasten to respond, "*C'est vrai, mademoiselle, sans doute.*" Then, melting into tenderness and English, my fair Gallic correspondent adds, "I like very much my *petit* Walrus, and his prattle so innocent which makes me chuckle *(rigoler)* at the foibles of other *personnes.*" Her little Walrus and his innocent prattle! I know now why the postman, who always reads my postcards, had a fit in the letterbox recently.

* * *

After these frivolities I turn with relief to more serious topics. Here is a piece of weighty advice worth more than £4 per half hundredweight to any photographer. "When photographing in strong sunlight one can arrange for the scene to be behind the camera, thus toning down the contrasts." This is an excellent dodge, but it requires a little thinking out. I take it that the idea is not so much that the landscape is to be bodily swung round, as that would bring the part that was previously behind the camera in front of it, and the difficulty would still remain. Then again, if the camera itself were turned round, the original scene would certainly be behind it, but how in the world can one photograph it with the back of the camera? If we put the lens at the back of the camera and the dark slide at the front, the front is now the back, and the scene that was first in front of the back is now at the back of the front; that is to say, the back landscape is now opposite the front of the camera that is really the back, while the front landscape which is really the back one is facing the back of the camera which was originally the front. We can now make the exposure with confidence. This may not seem very clear, but I am sure it is quite the best method yet suggested for reducing contrasts when photographing in strong sunlight, and as we never get strong sunlight nowadays the advice is particularly *apropos.*

* * *

From the same source I glean some useful hints on "The Management of Mountains." We have had advice *ad nauseam* on the management of babies, temper, sparking plugs, guinea pigs, drains, wives, lunatics, the national debt, gas stoves, and the nude; but what we photographers have been hankering after for years has been reliable information on managing mountains. It is easy to find mountains, but managing them is quite a different matter. They are by no means docile.

* * *

As the writer of the article truly observes, "lenses of different foci are only helps to laziness." What we really want are collapsable mountains that can be suitably blown up with a bellows and deflated with a hatpin. This latter is my own idea, which I only advance because I consider the writer's method of managing mountains a most futile and humiliating one. He simply advises climbing one mountain in order pictorially to manage another. He says, "Every hundred feet we clamber up makes a marked improvement in our view." We might logically conclude that a clamber of ten thousand feet would provide us with a view ten times as good as if we stuck at the bottom like a fat tourist, but we are then floored by the further remark, "It is seldom from the actual tops of high mountains that the best photographs are obtained." That settles it. I fully intended to clamber up Mount Everest for a good "photogram," but it would clearly be a waste of time and boots. Where does the mountain management come in? It seems to me that the mountains are managing me if I have to clamber up one of them for thousands and thousands of feet in order to succeed in not getting a good photogram. After all, I think I shall confine my photographic efforts to the management of mole-hills. I can sit on them effectively. Unless they turn out to be ant-hills. Then I stand up again.

THE WALRUS.

SUBSCRIPTIONS.

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Printing on Silver Phosphate Paper.

The Paget Co.'s new paper. Why Phosphate Paper bids fair to be very popular. No trouble either with exposure or with toning.

THE event of the week undoubtedly is the putting upon the market of their Phosphate paper by the Paget Prize Plate Co., which thus provides Ensyna with its first direct trade competitor. That the field is one that is worth cultivating is shown by the fact that there are rumours of a third as being about ready, though up to the present its advent has not been advertised. All goes to show that a gelatino-silver phosphate paper provides for a definite want of the photographer, and that in the future this form of silver printing is likely to be very extensively practised. The Paget Co.'s paper we review elsewhere this week.

It may be interesting if we examine for the moment why it is that the newcomers are able to elbow their way well into the arena, crowded as it is with excellent bromide, gaslight, and printing out papers. They must offer some decided advantage that the others do not possess, or this would be out of the question. One bromide paper may supplant another by clever pushing, judicious advertising, and what not, but the amateur photographer who does not mind changing from X's make to that of Y will not throw up both and learn a new process unless that new process has something very much in its favour which the others have not.

Fool-proof Phosphate.

In an article on Ensyna which appeared in our first issue this year we pointed out that with it failures did not come unsought—in fact, it is a peculiarity of the process that much of the trouble, or at least of the opportunities for failure, which are met with in other printing processes do not arise with phosphate papers at all. To use a colloquialism, it may be said to be "fool-proof," and many of us who would not admit the soft impeachment that we are fools would at least plead guilty to a partiality for a printing method which leaves nothing to chance

The exposure problem with these papers may almost be said to be non-existent. Provided the paper has exposure enough, many times the normal may be given without any harm resulting at all. The only difference will be a change in the tone of the print, which with longer exposure tends to become warmer.

The fact that the gradation of the print is not affected by alterations of the exposure within limits is very interesting. We know that in the case of bromide paper prolonged exposure flattens the contrasts, and that this is the case even with slow bromide or gaslight papers developed with highly restrained developers, in order to get warm tones. But there is very little difference of this kind to be detected between prints on phosphate paper which have had widely differing exposures; so that it is hardly too much to say that unless the print has to be a close match with some other print in point of colour the question whether it is exposed for one minute or ten is not of any great importance. The reason for this difference between the developed image in a bromide and in a phosphate print does not seem to have been investigated, but it is probably to be found in the fact that the development of a bromide print is simply the decomposition of a certain amount of the silver bromide in the emulsion on the paper, whereas it is said in the case of phosphate paper to be rather the solution of some of the silver of the coating and its deposition on the image—a kind of silver intensification, in fact.

MEMORANDA *for the week.*

In this space we announce, as occasion arises, things which in our readers' interests they would do well to note.

Few Processes as Difficult as P.O.P.

Next to the simplicity of the exposure problem with this paper comes the concurrent simplicity of the toning problem. Fond as the beginner is of P.O.P., we hold, and we have stated in these columns before now, that one of the most difficult of the everyday photographic processes is the production of a good, well-toned silver print. A poor print is perhaps more easily made on P.O.P. than by any other method, but a really good one calls for a degree of skill which certainly neither bromide, nor gaslight, nor even platinum or carbon demand. This is not the case with the phosphate papers.

The tones are obtained by direct and simple development, and when we call to mind the profusion of objectionable tones which the silver image can be made to assume at times under the hands of the photographer, it is certainly remarkable that the tones obtained on these papers should be so consistently agreeable, whether they are the cold black which is got with the shortest exposure that is practicable or the rich brown or red with full exposure. In this connection we might point out that the citric acid developer, given by the Paget Co. as an alternative formula, yields a particularly fine series of warm tones, although it is not so suitable for the colder tones as the acetic acid formula.

Is Very Short Washing Desirable?

It is noteworthy that the Paget Co. express themselves very guardedly on the subject of rapid washing after fixing. In this connection it may be pointed out that a lecturer at the Marylebone Camera Club last week, after speaking of the excellence of Ensyna for many purposes of the amateur photographer, stated that he washed his prints on this paper for much longer than the makers stated to be necessary, as on testing the wash water, after the washing recommended in the instructions, hypo was still present.

It is possible that with an image such as this a complete removal of the hypo is not the important thing it is with P.O.P. We are sure, moreover, that Messrs. Houghton would not recommend anything likely in their opinion in any way to endanger the permanence of the print. At the same time, there seems to be very little to be gained by cutting down the time of washing to a minimum of two minutes, and in our own practice we have been accustomed to wash prints on Ensyna much as we wash P.O.P. prints. That is to say, if they are merely wanted for block-making or some similar temporary purpose two minutes or less in running water is ample washing for P.O.P., whereas if they are to be reasonably permanent half an hour does not seem to be excessive. At least if it is more than the prints need, it is a mistake in the right direction.

Toning Prints on Phosphate Papers.

The cool black prints obtained with a short exposure on these papers may be toned to a sepia by the ordinary sulphide toning process, but nothing whatever is gained by so doing. As good a colour, or an even better one, may be got without the trouble, merely by increasing the exposure, using the same developer. Gold combined toning and fixing baths applied to prints which have been developed to a warm tone give some very fine shades of purple, and those who are on the look-out for effective colours would do well to try this method.

At the same time we do not advocate the toning of phosphate prints. The essence of the process is its simplicity, the little chance there is of going wrong with it, and the admirable series of colours that can be got by the most plain and straightforward development.

R. C. B.



Printing-in Clouds.

Although there are a great many photographers who practise the method of printing in clouds which Mr. Lewis describes in the very practical article from his pen which we publish this week, there is no doubt that the method is by no means so extensively used as was once the case. The modern methods of gum, oil, and the like, allow a sky, of sorts, to be dabbed in or dabbed out, as the case may be, without any recourse to a cloud negative; while the extended use of orthochromatic plates and colour screens has increased the number of negatives in which the natural sky can be left, with no more dodging perhaps than a little shading during printing. There can be no doubt that this is altogether better, since the actual part played by the clouds can only be partly represented in the picture by printing them in, however carefully it may be done. We cannot possibly hope to print in at the same time all the subtle effects in the landscape which are directly due to the clouds.

Press Photography.

We have recently shown in these columns how the amateur photographer may do work for the press, and so recoup some of his outlay on his hobby. But this is not press photography, or perhaps we had better say news photography, which is vastly different, demanding more elaborate apparatus, as a rule, and involving a rushing of some of the processes which would make the careful amateur shudder. An interesting account of this side of photography is given in the summer number of our contemporary "Cycling," together with an illustration of some of the apparatus used, which included Argus and Shew reflex, a focal plane Xit and Goerz-Anschutz cameras for the instantaneous work, as well as stand cameras. Two points we note in the article are (1) that the best method of carrying the camera on a bicycle or motor bicycle is to sling the camera bag from a broad strap across the shoulders, and (2) that whenever possible printing from a wet negative is avoided.

Photographic Exhibitions.

We give elsewhere this week a note of two meetings of the photographic trade which were called to consider the advisability of supporting (1) an exhibition to be held next spring in the Horticultural Hall, and (2) the International Exhibition of 1910 at Brussels.

The middle of July is a bad time of year to get together a representative meeting of any trade, and both these gatherings were very sparsely attended. The matter is of less importance, however, than it might be, as the organisation of both exhibitions is being carried out largely by correspondence at the present time. We are not of opinion that 1910 is a particularly favourable opportunity for carrying out a successful photographic trade exhibition on a large scale in London, the severe trade depression deterring a great many firms from undertaking anything likely to involve them in much expense. On the other hand, it is argued that the depression is itself an excellent reason for applying the stimulus of an exhibition, and endeavouring to increase the interest of the public in photography. At least there should be no difficulty in filling the Horticultural Hall with an attractive series of trade exhibits, and if having done so the public can be induced to visit it in as large numbers as at some of the other exhibitions recently held there, the effect on the photographic trade all round ought to be an excellent one.

Gas in the Dark Room Lamp.

It has been stated that the incandescent gaslight is not very suitable for dark room illumination, and that the ordinary gas burner is better, as it gives a flame which is rich in red and yellow, whereas a great deal of the extra light gained by using an incandescent mantle is stopped by the non-actinic medium, whatever that may be, with which the lamp is fitted. Such a statement is altogether inaccurate. It may be that the incandescent light is richer in blue and violet rays which are cut off by the glass or fabric; but it is also very much richer in red and yellow rays, which are not so cut off. Anyone who substitutes the incandescent for the ordinary or "batswing" burner in his dark room lamp will at once find that he gets a great deal more light; and insufficient light in the dark room is one of the very commonest mistakes made by the amateur. It will be noticed that Mr. S. J. Tayler, in his article on "A Dark Room Lamp" on page 92 this week, strongly recommends an incandescent gas burner, and in our own practice we have used nothing else for some years now, and would be sorry to be compelled to go back to the older form.

With Simple Arithmetic Only.

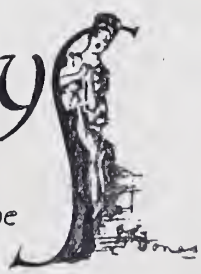
Many an amateur who can take an excellent photograph has completely forgotten any algebra he may have learnt when he was at school, and many more never wandered into the paths where x and y are to be found. On all these, as we know from long experience, the presence of any mathematical formula on a printed page acts as a kind of danger signal. We are, therefore, glad to be able to put before such of our readers as these the article by "Practicus" on page 100, in which he describes how one may ascertain the result of combining one lens with another by the aid of the four simple rules of arithmetic and nothing more. We may perhaps add that the word "lens" in this connection does not mean simply the brass mounted product of the photographic optician, but any magnifying or diminishing glass. An eyeglass, a spectacle lens, the glass out of a telescope, or microscope, is still a lens, and as such can be used for photography and its effect ascertained by the methods given on page 100. True such lenses may not give the excellent definition of the photographic lens; but they are not different from it in essence, and as far as such matters as focal length and aperture are concerned, are dealt with exactly in the same way.

Enlarging the Scope of Exhibitions.

Some months ago we recorded the proposal of Dr. Hall-Edwards to widen the scope of exhibitions by encouraging the application of photography to science and manufacture; and we now learn that as an outcome of it, two sections of the exhibition to be held by the Birmingham Photographic Society in February next are to be given up to scientific and to applied photography respectively. These sections are subdivided into a number of classes, amongst which we note geological photographs, photographs dealing with the detection of crime, photographs suitable for recruiting purposes, for advertising, photographs illustrating the various processes a manufactured article passes through, and so on. The most important paragraph in the circular is that which states that "all exhibits in these sections will be judged chiefly from the scientific standpoint by a competent staff of specialists." There can be no doubt that the fact that their work was to be judged by photographers rather than by those familiar with the sciences in which photography was merely acting as a recorder has been a deterrent to exhibitors in the past. The attempt of the Birmingham Society is undoubtedly a move in the right direction; and we trust one which will meet with the success it deserves.



Cooking Both Ways

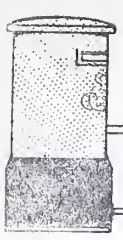


Amongst the features of last weeks issue of Photography were

Notes on yachting subjects, by Evan McGowan.
Lenses for hand cameras.
Photography and pleasure cruising, by "Voyageur."
Ships and the camera, by Fred Wright.
Cheap and simple gum bichromate.

Next week amongst other matters we hope to deal with

The stops of a lens and their use, by H. H. Fowler.
A wet day in London, by Chelsea.
St. Albans.
Postcards with gradated borders, by George Euren.
Glazing postcards, by H. W. P.



REPLIES TO CORRESPONDENTS.



Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received.

ORTHO (Shipston).—They can be changed in a bedroom at night quite easily.

OPTICS (Cupar).—Nothing would be gained by the change. Both are in the first rank.

E. M. HAYGARTH (Bournemouth).—Your enquiry was fully answered on our competition page last week.

J. SARNA (Hackney).—We have returned your prints The one called "Drawing Water" certainly makes the most pleasant picture.

E. F. GINTON (Jersey).—If you always have to use it there is no harm in doing what you have done; bnt it is not wise to employ it at all unless necessary.

G. KIDSTON (Springburn).—Probably they are done on "Ensyna," full particulars for the use of which are given in each packet of the paper. Any dealer will snpply it.

ANNO DOMINI (Oldham).—There is no rule whatever as to the size of the camera, but only as to the size of the prints sent in, so that they would, of course, be eligible.

BEGINNER (Lincoln).—Bronze dust will do what you want, as also will ivory black. E. M. Richford and Co., Snow Hill, London, E.C., supply a black ink for the purpose.

STINT (Haverstock Hill).—The magic lantern is probably not suitable. The best plan would be to get some simple form of fixed focus daylight enlarger. All the big dealers supply them.

F.P.S. (Chatham).—They may be reduced by being placed in the C solution (much diluted to prevent too rapid action), but if they are badly under-exposed nothing will make them good.

MISS LEE (Bangor).—You have no doubt seen by now the whole page of rules, etc., in last week's issue. The subjects for "Special Subject Competitions" are announced three or four months ahead.

J. MCLEOD (Birkenhead).—The result of such a vote would no doubt be as you say; but we do not see what use it would be. If it could be acted upon we do not doubt for a moment but that the change would be made.

AUCTION PAPER (Wednesbury).—It is probably bromide paper; but whether it is any good or not we cannot say (probably not). Any elementary treatise will tell you what and how to deal with bromide paper; but you will be money in pocket we expect if you throw it away.

J. BICKERTON (Alford).—Chemical dust is undoubtedly the cause of the spots on the print (which we have returned), but how that dust got on, or its composition, we do not know. The fact that you get the spots with different makes of paper and different solutions is evidence that the fault lies with yourself.

YRAC (Clifton).—The sulphurous acid attacked the metal. Acid hypo baths should not be used in metal tanks, but plain hypo solutions do no harm. If you have given it a good scrubbing no harm will result from its use in future, if the bath is not an acid one. We have published the warning you suggest over and over again; but you must have missed it.

W. SIMPSON (Dreghorn).—The best plan will be to place print and negative in clean hypo for half an hour, stripping off all the paper that can be got off without injnry to the negative. The rest can then be rubbed off a little at a time with the fingers, and the negative can then be well washed. But in all probability you will find the film irretrievably marked.

POCKET (Hitchin).—Under favourable circumstances such apparatus would give you just as good a result as any other; certainly quite good enough for the pnrpose named. But one is very much limited by these cheaper ones, and for press work, where the conditions are often most unfavourable, something better is certainly to be preferred. It is very good value at its price.

H. D. LUARD (Stoke).—Two causes have been assigned to them—(1) the use of modern lenses, including a very wide angle, with little or no hood, and (2) the nse of too little developer. The former is the commonest, and they generally vanish when the lens is fitted with a cardboard or other hood cutting off as much as possible of the light which shines on the bellows, and is reflected thence on to the plate.

MISS ARIS (Exeter).—The firm has no representative in this country.

INQUIRER (Combroke).—It is made by Houghtons, Ltd., 88-89, High Holborn, W.C.

T.A.R. (Leeds).—Many thanks for the card; we are correcting the error this week. It is as you suppose.

F. FREEMAN (Cambridge).—"Elementary Photomicrography," by W. Bagshaw, price 1s. nett, or post free from our publishers 1s. 2d., should answer your purpose.

C. DUNSTONE (Coulsdon).—The firm is a substantial one; but if the facts are as you state you would seem to have good ground for cancelling the order. The matter is one for a solicitor.

J. G. H. BROOKES (North Petherton).—It is not a subject with which we have dealt recently. Marion and Co., 22-23, Soho Square, London, W.C., supply an excellent apparatus for the purpose.

ANGLO-SAXON (Holloway Road).—No particular stress is laid upon it, the matter is more a difference than an advantage. Certainly it will give as clean results as any other. We have an article in type on the subject.

COPYRIGHT (Broxbourne).—If the photograph he sends you was taken for him by a professional photographer and paid for in the ordinary course of business, he can give you permission to copy and use it in the way you suggest.

R. T. A. HOG (Winchester).—It is not possible for us to say why you fail; but if you get good black and white prints to start with, with plenty of vigour, you should succeed. We are not prepared to recommend one make of plate in preference to another.

F. B. WOODS (Llandudno).—Card may be sized by applying with a sponge a mixture of 90 grains of arrowroot and 20 grains of glucose mixed up with an ounce of cold water. Nine ounces of boiling water are then added, and the mixture strained and applied while still warm.

J.D. (Stocksfield).—There have been several instruments of this kind on the market at different times; but they have never met with any large sale. We should think it very doubtful whether you would ever see your money back were you to go to the expense of patenting it.

G. E. TENNANT (Leeds).—There is no reason why you should not use films if you wish. The best kind of plate is a very rapid one, the actual brand is not material. You would do best to get the fastest speed of the maker whose plates or films you are accustomed to use. We are sorry, but we cannot reply by post.

IKONA (Cambridge).—Try a mixture of potassium bromide 10 grains, copper sulphate 10 grains, water 1 ounce, adding to it enough gum water to make it flow properly. Leave it on for two or three minutes, wash the plate under the tap, put it in clean hypo for five minutes, and then wash and dry it.

WEST GORTON (Manchester).—Two grains of sodium bicarbonate should be added to the solution of gold chloride for each grain of chloride present, and the mixture then added to the formate solution. The bath, however, is not one that keeps well at any time, and it certainly should not be made up "a few hours" before it is required.

MADAN MOHAN (Jhalrapatan).—The print of "Kherabad's Goddess" is hardly one which we can fairly criticise. It is a poor hard print, with too much light coming in on both sides, and much too strong in its contrasts; but how much of these defects are your own shortcomings and how much they are due to the exceptional circumstances under which you were working is not for us to say.

EXSICCATE (Chester).—It is hardly a thing to attempt for yourself. You are clearly getting a quality quite needlessly pure. Lumière's supply it at 1s. 5d. per lb. If you are using it to make up solutions, the crystallised salt does equally well if twice as much of it as of the anhydrous is employed. Barium chloride is a test for "sulphate," giving a white precipitate. There is generally a very little sulphate present in commercial samples, and it does no great harm. If you buy from a dealer of standing there is no need to trouble about testing.

TONER (Faversham).—We hope to complete them. The solution will last for several months.

TEE CEE (Finsbury Park).—We are much obliged for the suggestion and will see what can be done.

W. G. WOODING (Stoke Newington).—Hopkin and Williams, Cross Street, Hatton Garden, E.C., or any manufacturing chemist will snpply it.

J. KNIGHT (Jarrow).—Any dealer supplies them. We got some recently from J. A. Sinclair and Co., 54, Haymarket, London, S.W.

IDA ACKROYD (Walton-on-Thames).—Anhydrous sodium sulphite 120 grains, diamidophenol 20 grains, water 10 ounces. Time mnst be ascertained by trial.

OMEGA (Fulham).—Out of doors there is not the slightest trouble, and in doors in most cases there is very little. See reply to "An Old Focussite."

AN OLD FOCUSSITE (Southport).—As we pointed out in two articles a few months ago, restrictions are almost non-existent. We have never experienced the slightest trouble.

N. P. SAMPAT (Karanja).—It is a collotype. There is no book dealing specially with it now in print, but Wilkinson's "Photo-Mechanical Processes," price 4s., describes it. It would be a very difficult process to work under the climatic conditions of India.

R. A. GANDER (Lindfield).—We have returned the negative and print. It is not in any way due to the lens, but has been caused by the film on the glass partly melting while drying. It must have been dried in the sun or by a fire, or at least in an unusually hot place.

A. A. K. BRANDRETH (Birkenhead) writes: "I should like to get hold of a clockwork machine to feed the magnesium ribbon for enlarging at night. I have heard that such a thing exists, but can get no particulars." *A.*—Perhaps some reader has the information desired by our correspondent.

ORTHO (Kingston-on-Thames).—There is no book on the subject, and no restrictions likely to trouble you, customs or otherwise. We pointed all this out in a couple of articles three months ago. Bruges you will find full of opportunities, and the other old towns round and about are very fine.

F. F. WATSON (Anerley).—It is, unfortunately, impossible for us to do what you want in such a way as to be of any assistance. Imagine yourself in a restaurant, selecting one dish out of dozens on a bill of fare, and then asked to point out why you did not select some particular one of the others.

W. W. KERR (Bothwell).—We have no information on the subject at all, and can only suggest that you do as we do ourselves—take an *ample* supply of plates, even if half are brought back unexposed. We should be very sorry to have to depend on local supplies in Germany even if we could get the British brand we wanted.

G. W. LEECH (Watford).—We are now using the latest formula issued with the plates, and certainly find no want of brilliance in the colour. At the same time, if the plate has been at all over-exposed or over-developed intensification is necessary. We use the method of determining exposure given in the book you have, and do not know a better There have not been any articles on this subject of late.

NOVICE (Ohelsea).—Everything would depend on the nearness of the nearest part of the "scenery" which you do not mention. Probably a fiftieth of a second would be about the limit. Your second case cannot be answered. It could only be ascertained by trial. The answer would depend on all sorts of things you do not give, nearness to the coach, focus of lens, angle at which it was taken, are all factors. You can only give it the shortest and trust to luck.

BEGINNER (Darlington).—The camera might go in the alcove, and the sitter be somewhere between the two windows, the west window being entirely obscured; or the south window might be blocked up and the camera put at the north end of the room. But good portraits could be taken in almost any position, provided one window is quite blocked up. Everything turns on the particular lighting effect you want. See articles in our columns from time to time.



THE MESSINA AND REGGIO BOOK, we are officially informed by the Italian Photographic Society, will be ready in September.

THE WATFORD PHOTOGRAPHIC SOCIETY at its annual meeting re-elected its officers and committee. The honorary secretary is Mr. H. Langford Lewis, 78, Gladstone Road, Watford.

A JAPANESE CATALOGUE of photographic goods and two numbers of the "Sun Photo-Bulletin" in Japanese has reached us from Selles Hermanos, Kobe, No. 12, 1 chome, Nakayamate-dori.

EDITORS IN THE U.S.A. seem to have a classification similar to that of eggs as defined by Dan Leno. Thus, the first number of "Photographic Progress," a monthly periodical, announces that it is to be run by A. K. Boursault, "managing editor"; Thos. Bedding, "technical and scientific editor"; and J. Nilsen Laurvik "editor."

WORKING BROMIDE PAPER. The ordinary ruby glass or coloured fabric which is used in the dark room lamp when negative making is much too dark for bromide paper work, and if used is certain to lead to trouble from incorrect development. Plenty of yellow light should be employed, the canary fabric sold by most big dealers being a very suitable medium. Two thicknesses of this in front of an incandescent gas burner give a very suitable light for the development of bromide prints and enlargements.

WASHING PRINTS. Mr. W. S. Brewster writes, "With reference to the plan of washing prints by pinning them to a board, as given by a reader *Photography and Focus* recently, I should like to warn those adopting this plan to be careful that the pins do not rust, as they very quickly may do. I have had prints spoilt by this. The rust runs down the print, and nothing that I know of will remove the stain so caused. I found that by getting a number of corks and slitting them, then slipping the prints one in each cork, I get the same result without the danger of stains."

NAME, PLEASE. "I remember an old professional photographer," writes a contributor to the "Pall Mall Gazette," "of great reputation in his day who had a cloud negative of which he was especially proud. The cloud became very familiar in time. It was printed in greater or less portion in about half the landscapes he turned out, its situation being altogether regardless of the lighting of the remainder of the view. Much chaffing from friends, however, ultimately led to the disuse of this cloud, although to the end the whole stock of cloud negatives of my friend did not amount to a dozen, and upon these infinite variations were played."

THE PORTSMOUTH CAMERA CLUB. Mr. Jas. C. Thompson, of 23, Elm Grove, Southsea, is now the secretary.

THE KINEMATOGRAPH IN THE PALACE. According to the "Daily Telegraph," the Kaiser has at the Royal Palace at Berlin a kinematograph with which his guests are sometimes entertained.

A NEW SOCIETY IN PADDINGTON. The Fernhead Wesley Guild Photographic Society has been formed, meeting every Thursday. The honorary secretary is Mr. J. E. Hogben, 334, Kilburn Lane, W.

THE BISHOP AUCKLAND Photographic Society holds its exhibition November 23rd, 24th, and 25th. Entry forms can be obtained from the honorary secretary, Mr. George Ross, Cemetery Lodge, Bishop Auckland.

CLEANING BOTTLES. Mr. P. J. Ward writes, "The following method of cleaning bottles is very effective. A raw potato is cut into small pieces and put into the bottle, with a little water and well shaken up. It removes the thickest crust."

ENSIGN FILM COMPETITION. The winner in this for July is James E. Tyler, of North Street, Halstead, Essex. A three guinea camera is awarded every month by Houghton's, Ltd., for the best negative on Ensign film.

EARLY STEREOSCOPIC DAGUERREOTYPES. Mr. T. Bedding, writing in "Photographic Progress," says that "Daguerre's process was no sooner perfected than it was used for binocular work. Or, to be more exact, the sitter sat in two positions, and was photographed through one lens, so that two slightly dissimilar pictures of him appeared side by side on the plate."

TO BLACKEN STOPS. According to the "Darwen Gazette" brass stops may be blackened by making them quite clean and free from grease, by washing in caustic soda or potash and well washing under the tap. They are then immersed in a solution of copper nitrate, and heated in the flame of a Bunsen burner. The colour first obtained is green, and subsequently a fine black. The method adopted by manufacturers seems to be more or less of a trade secret, as brass work blackened by this or one of the other published formulæ never has quite the finish of the optician's work.

THE MERRETT PRINT TRIMMER. Mr. R. H. Herford writes, "I notice that your contributor 'W.B.O.' draws attention to the Merrett print trimmer. He does not, however, point out its advantages. This trimmer was introduced by the Adhesive Dry Mounting Co., because they evidently found, as everyone does, that the adhesive tissue always protrudes slightly from under the mounted picture when trimmed in an ordinary guillotine cutter. The Merrett cutter gives an under-cut which obviates this, and also does away with the white edges that an ordinary cutter leaves. Those thinking of taking up the dry mounting process should bear this in mind. I may say I have no interest whatever in the Adhesive Dry Mounting Co."

CORRECTION. In the formula for a developer for bromide paper given on page 55 of our issue for July 20th, 1909, three grains of potassium bromide should have been printed instead of three ounces.

JUDGING ONE'S OWN WORK. Mr. F. G. Ryder told the Southampton Camera Club that he did not agree with submitting any picture to the opinion of a judge, because the pictorialist should possess some definite aim, which a judge may not interpret. He therefore contended that a photographer is the best judge of his own work.

THE DARK ROOM BENCH. It will be found to be an excellent plan, and one that prevents a good many mistakes, to make a rule always to have the various things used during development in exactly the same place on the dark-room bench, so that when the measure, or the clock, or the hypo dish is wanted, one knows where it is, and does not have to go grouping about in the half-light, possibly knocking one or two things over in doing so. Stray bottles and measures should be absolutely tabooed there.

"IF WE WANT TO SHOW a thing to the best advantage," says "Orexis" in the "County Gentleman," "we must be content to take one thing at a time—to take one summit rather than a chain of Alps—to make our picture out of one fine old doorway (if that was what attracted us) rather than record upon the same plate the existence of the whole house front—windows, chimneys, and all. We cannot look into the front doorway and up at the chimneys on the skyline at the same moment without distraction."

Trade Meetings.

TWO meetings of the photographic trade were held on the 22nd ult. The first at the Holborn Restaurant was called by Mr. A. C. Brookes, who dealt at length with the prospects of a successful trade exhibition in the Horticultural Hall, Westminster. He stated he had received promises of support from over twenty firms. No resolution was come to.

Those present adjourned to the Platinotype Co.'s premises, where a meeting had been called to consider the representation of the photographic trade at the forthcoming international exhibition at Brussels. Mr. Snowden Ward presided, and after some discussion it was agreed *nem. con.* (1) that it was desirable that photography should be adequately represented, and (2) that the Board of Trade should secure the co-operation of a committee of photographic trade exhibitors.

A good deal was said as to the offer of the British Government to provide stands and showcases free of charge, several members of the trade expressing a preference for erecting their own stands, and it was decided to ascertain from the committee how far this would be permissible.

Owing, probably, to the holiday season, neither of these meetings was well attended, something less than a dozen firms in all being represented.



THE·LATEST·IN·APPARATUS·&·MATERIAL.

The Paget Prize Phosphate Paper.

THE latest addition to the long list of printing papers at the disposal of the photographer is the Paget Prize Phosphate Paper, samples of which we have had under trial during the last day or two. The paper must not be confused either with P.O.P., bromide, or gaslight, as it is quite distinct from these, although it possesses some of the good qualities of each.

For example, it can be exposed either to weak daylight, or to magnesium ribbon, or to incandescent gas, or to the electric light. In the case of incandescent gas, exposures a foot from the burner are generally decidedly less than a minute, so that it is sufficiently sensitive for all ordinary purposes. Then it can be handled in very weak daylight, or in ordinary gas or lamp light without hurt, in this respect being very similar to "gaslight paper." Finally, it will yield by simple development a fine range of tones from a rich black to sepia, brown, or even red, without any need for gold toning. The colours obtained are not only in every way equal to those which can be got on gold-toned P.O.P., but they are got more easily and with more uniformity, being governed simply by the exposure; while there is none of that loss of vigour or alteration of tone in the hypo bath which is the bane of the beginner in silver printing.

This is surely a fine list of advantages, and not only are they fully borne out by our own trials and by some most excellent samples sent to us by the company, but we cannot find that they are accompanied by any counterbalancing drawbacks. The paper is made in all the standard sizes, both matt and glossy; it is also supplied in postcard form. The glossy prints may be glazed in the same way as other papers by drying on ferrotype, pulp, or glass plates.

The manipulation of the paper, we have already said, is of a very simple character. The exposures, for cold tones, vary, of course, according to the negative employed, but the instructions give the following as a rough guide:

Daylight, in a room, say, 6 feet from the window	3 to 6 seconds
Incandescent gas, 12 inches from the burner	20 to 40 seconds
Electric light (16 c.p.), 12 inches from the burner	1½ to 3 minutes
Magnesium ribbon	1 to 2 inches

Several times the correct exposure may be given without in any way hurting the gradation of the print, the only apparent difference, so long as the developer is unaltered, being that the tone becomes warmer, passing to brown or red, and, in the case of excessive over-exposure, to yellow. We have not had time up to the present to make comparative tests to see precisely what variations in exposure are permissible, but they are certainly far in excess of anything that can be done with bromide or gaslight papers.

The instructions give as the developer a solution of a quarter of an ounce of metol in a mixture of twenty ounces of water and three ounces of acetic acid. One part of this solution to nineteen parts of water forms the developer as applied to the paper. Since getting the paper, the Paget Co. have informed us that for warm toned prints a quarter of an ounce of citric acid may be substituted for the three ounces of acetic, and the solution diluted with nine parts of water.

The paper develops very slowly and steadily, the action not starting quickly, but when once visibly started appearing to progress more rapidly. It generally takes about a couple of minutes, prints given a short exposure for a cold tone taking longer to develop than those which yield a warm tone. If the print is insufficiently exposed to give even a black tone, there is a risk of the whites becoming degraded.

After development, the print is washed for less than a minute and fixed in an acid hypo bath. The instructions give the composition of this as three ounces of hypo and a quarter of an ounce of sodium metabisulphite to the pint of water. We used potassium metabisulphite instead of the sodium salt, and found it quite effective. We mention it here, as sodium metabisulphite is less readily obtained.

As regards washing, perhaps the best thing we can do is to quote the instructions *verbatim:* "It is stated, and we believe it to be true, that phosphate papers require only a few minutes' washing after fixing, but until this is fully confirmed by experience we would suggest that in cases where permanency is important at least half an hour in running water, or several changes, be given."

There is much more that we could say about this interesting product, but space is not available at the moment. The general subject of phosphate papers is dealt with in our leading article this week, and that and what we have reported above must suffice for the present. We will therefore leave the subject with the remark that every amateur photographer who wishes to keep himself in touch with progress in photographic materials must take an early opportunity of trying the latest product of the Paget Prize Plate Co.

The Challenge Self-toning and Bromide Cards.

SOME self-toning postcards have been sent to us for trial by the Challenge Photographic Works, of Macclesfield; and on being tested proved to be in every way satisfactory. There was nothing in their treatment at all out of the common; they were simply printed deeply, and then placed without washing in a plain solution of hypo, of a strength of three ounces to the pint for brown tones, or of six ounces to the pint for purple. In this bath the prints were completely fixed and toned in about six minutes. A speciality of the company is a series of tinted papers and cards.

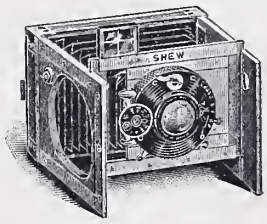
The same makers have submitted samples of their cream crayon bromide cards. These are on a substantial paper of card-like character with a moderately rough surface, coated with a very clean working and satisfactory emulsion. The tone of the card is a not too dark cream, which is particularly effective when the print is sulphide toned to a good sepia. Both metol-hydrokinone and amidol developers are recommended by the Challenge Co. for the papers; our own tests were made with the amidol. There are ten different grades of white or cream, as well as six grades of art tints of these papers.

The Euxit—Messrs. Shew's Vest Pocket Xit Camera.

THE underlying principle of the Xit cameras, the two hinged wings which serve to hold the front when open, or to protect it when closed, is very well known and widely appreciated. The arrangement is a very simple one, and at the same time gives a most rigid construction, which lends itself very easily to be used as a rising front. The latest pattern of Xit camera to make its appearance is the Euxit, which is shown in the accompanying illustration.



The Euxit is a Xit camera for plates 3½in. by 2½in., and folds up to a size small enough to be carried comfortably in the pocket. It is provided with a rising front in both directions, and is fitted with a special form of direct vision viewfinder. The back and wings are of mahogany bound with aluminium, the front being entirely of metal. The camera which we had for trial was fitted with a focussing Cooke lens of 4.4in. focus, working at f/6.5, mounted in a compound shutter graduated from the two hundred and fiftieth part of a second downwards. The dark slides are single, of the Elge patent pattern in metal, and are very light and compact, with nothing to get out of order.



On the whole, the Euxit is a capital pocket camera of high class, embodying several characteristic features of great merit. It is not a low-priced camera, but at the nine guineas at which it sells it is certainly excellent value, being alike cleverly designed, strongly made, and beautifully finished. The price includes the lens, as described, and six single slides in a purse. It is put on the market by Messrs. J. F. Shew and Co., of Newman Street, London, W.

The Week's Meetings.

MONDAY, AUGUST 2ND.

Everton C.C. Monsal Dale.
Bootle P.S. Lichfield.
Batley & D.P.S. Around Batley.
Bristol P.C. Chipping Sodbury, Temple Meads.

TUESDAY, AUGUST 3RD.

U. Stereoscopic S. "Portraiture and Figure Studies." A. Lester.
Kinning Park C.C. Business Meeting.
Nelson P.S. R.P.S. Prints.
Nelson C.C. Ramble and Question Evening.

WEDNESDAY, AUGUST 4TH.

Everton C.C. Members' Evening.
Dennistoun A.P.A. Glasgow Docks.

THURSDAY, AUGUST 5TH.

Tetbury C.C. Flower Show.

SATURDAY, AUGUST 7TH.

Kinning Park C.C. Bishopton.
Shettlestone & D.C.C. Howwood.
G.E.R. Mech. Inst. Slough.
Nelson P.S. Ramble.
Wallasey A.P.S. Upton and Woodchurch.
Queen's Park A.P.A. Gartcosh.
Glasgow S P.A. Largs.
Dennistoun A.P.A. Falls of Clyde.
Hackney P.S. Otters Pool.
Nelson C.C. Ramble.

MONDAY, AUGUST 9TH.

Kinning Park C.C. Committee Meeting.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

SUBSCRIPTION.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
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Three Months ..	1	8	Three Months..	2	9
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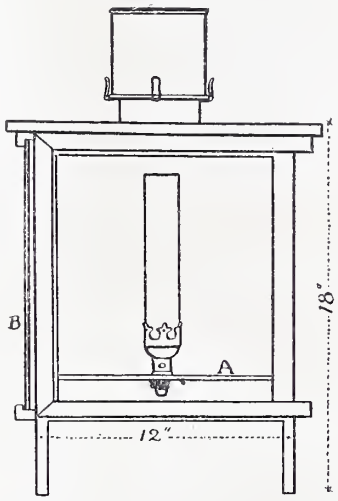
A Dark Room Lamp.

How it was Made at Home, together with some Hints as to its Use.

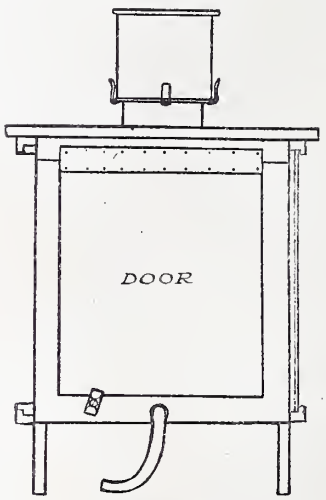
By S. J. Tayler. *Special to "Photography and Focus."*

It is not beautiful to look at. It is not absolutely fireproof, although I could easily have made it so. It is strictly utilitarian, and thoroughly practical, and cost me, I suppose, something like two shillings to make, although if one has to buy a burner and chimney, the cost might come out to a little more. It has served me well for at least two years, and so far I have not felt the need of anything else.

My lamp is merely a large framework of laths, nailed to a base of thick wood, which gives it absolute steadiness and ensures freedom from any liability to be knocked over in the darkroom. Dimensions are not given here, but will be found appended to my diagram, and are sufficient to work by. The bottom is actually a double one, there being a thin false bottom inside, made of three-ply wood, and the gas pipe runs between these two floors, emerging through a hole at the back, as shown in the back elevation. Originally I had a bye-pass burner fitted, but this was an old one, abandoned by the household, and practically worn out, besides being less efficient than the modern types, and my present one has no outside tap. I had a wire fixed to the bye-pass, which passed out through holes in the double bottom, by which the light could be turned right down when absolute darkness was required; and this was a convenience which I would not have dispensed with if I had been buying a burner specially for the lamp. The top of the lamp is of wood; and the hole in the centre, in which the chimney is fixed, being very large, it has not yet taken fire, even after some hours burning; it would undoubtedly, however, be safer to have made it of asbestos board. Inside the top is a sheet of tin, the centre hole of which is cut a little smaller than the diameter of the chimney, so that the latter rests on it; the wooden top being made in two halves clamps the chimney firmly in place, and no light leaks out round it. If the fit had been loose I should have filled any spaces with asbestos cord, wound round the chimney, but this proved to be unnecessary.



Front view.



Back view.

The chimney itself consists of two golden syrup tins, the smaller being fitted into the top of the lamp, and the larger supported over it, cap fashion, by hooks of brass strip. The convenience of this arrangement is that the upper tin can be removed for lighting the lamp, and replaced without difficulty, although, now that I have replaced the fixed front panel by a sliding one, I do not need to do this.

The non-actinic medium is ordinary ruby cloth, two thicknesses of which go to each side of the lamp. The front was originally made of two thicknesses of canary, with an extra curtain of two thicknesses of ruby in front of that. The ruby curtain folded up out of the way when bromide work was being done, and could be let down when plates were developed. This arrangement served well until I began experimenting with panchromatic plates, and I then had to reconstruct the lamp so as to enable the substitution of a green safelight for the red when required. I obtained a few feet of plain picture moulding, and screwed lengths of it round the three visible sides of the lamp, making panels of thin wood to shut in the two red sides, and one of millboard, with the safelight fitted in its centre, for the front. I have also, of course, a panel with a canary centre for bromide work, and when ordinary plates are being developed, instead of fitting a ruby panel in front I leave in the green light, but uncover one of the red side windows of the lamp, this furnishing ample illumination over the greater part of the room.

The burner is an incandescent one of small size, and I certainly think this illuminant beats almost everything else for convenience and reliability, whilst its power is such that one can work bromide papers with as much ease as gaslight ones. It has also the merit of piercing the green safelight most effectively, and affording sufficient illumination for observing the progress of development of panchromatics with comfort and safety.

The fitting of the burner is an easy matter. A piece of tube bent to a right angle, called by gasfitters a "nose-piece," and screwed to take the burner, can be bought for fourpence. This has a short length of rubber tube fitted before putting it into the lamp. Glued string is wound round the upright length up to the screw-thread, and the burner is simply screwed down on it until it is firmly clenched to the false bottom, the joint being made gas-tight, if I recollect aright, with paint. (It will be seen that everything connected with this lamp is of a rough-and-ready description, and the making of it involved no knowledge of carpentry.) The short length of rubber tube comes out through the back of the lamp, and, of course, fits on to the supply pipe. The lamp stands a few inches off the bench, and can be moved about within a small range.

The back door was made light-tight with strips of black cloth, tacked round the edges, and fastens with an ordinary turn button. This, as well as the top, might with advantage have been made of asbestos board, but I used wood, which has served satisfactorily so far.

As regards the ventilation of the lamp, the burner draws its supply of air through the double bottom, and also through the two sides of the lamp, the ruby cloth being fitted, one piece inside and the other outside the framework, with a narrow space between, opening at the top to the interior and at the bottom to the outside air.

Those who are accustomed to a square of dim light of six inches or so would be aghast to see the vast glare of my lamp when it is alight and burning at full pressure. It illuminates the whole of the darkroom beautifully. Needless to say, this brilliant light is not used when plates are being dealt with, but for enlarging and bromide printing

work it is a great comfort. The more moderate light provided by leaving one side panel only uncovered is safe for orthochromatic plates with ordinary care—not exposing them to the direct rays, and with the gas turned a little down—and is, of course, absolutely safe for slow ordinaries.

The canary panel in front furnishes plenty of light for watching development of papers, and transparencies can be printed with it by holding the printing frame against the material; this furnishes easy control of the process, and the canary is just sufficiently non-actinic not to fog the transparency during development, even if left uncovered, provided one works in the shade.

With the two wood side panels in and the green safelight in the front, I can develop panchromatic plates under the shadow of the shelf, taking a peep now and then at the progress of development by raising the dish to eye-level.

I always prefer this procedure to the time method of development, to which, despite scientific argument, I have never been able to educate myself.



A Washerwoman of Lausanne. *By A. W. H. Slaughter.*

Postcards with Plate Marks.

THE plate mark is a means of relieving the monotony of a perfectly plain white border to a print, which is by no means to be despised. It is particularly effective in the case of postcards, and prints made on similarly substantial material; and has the advantage that its application requires no apparatus that the amateur cannot very quickly construct by himself.

To make a plate marking device, all that has to be done is to cut a piece of strong cardboard—it need not be very thick if it is of a firm texture—to the size of the plate mark that is to be impressed. A second piece of card of the same sort should be a little larger than any of the prints to be plate marked, and should have cut in the centre of it an opening in which the first card is just a nice fit.

Having done this, a piece of smooth white paper, or, better still, a piece of parchment, the width of the larger card, but an inch longer, is then laid upon the table, the larger card laid on it, and the inch length of the paper or parchment extending beyond this card is glued, folded round, and pressed neatly down upon the card. The face of the smaller card is then glued, and it is inserted in the opening, so as to stick to the paper below, which shows through the opening, and is then left under pressure to dry.

This gives us a little appliance with which a plate mark can be put on a card very quickly. It is held up to the light, and the card to be marked is adjusted until the opening comes exactly where it is required. It will not be so opaque, even if the card is fairly thick, that the position of the opening cannot be seen and adjusted through it. The paper or parchment with the central disc attached is then folded down upon the card, and the whole is put under pressure. The card comes out with a perfect plate mark.

The picture which is to be marked in this way must always be printed with a white margin, and the position of the plate-mark should be governed by the position of the boundaries of the picture on the card. That is to say, there should be none of that eccentricity sometimes seen in mounting, but the picture should come exactly in the centre of the plate mark, except that there may be a little wider margin between the bottom of the picture and the plate mark.

The most convenient way of applying the pressure is by means of a copying press, and a moment or two in such an apparatus is all that is required. But a copying press is not a necessity, and a heavy weight will do almost as well. If the cards are slipped between two smooth pieces of board and the photographer puts one foot in the middle of the upper board and puts all his weight on it for a moment, the thing will be done effectively.

W. HANSOM.



THE CAMERA IN THE COUNTRY

WHARFEDALE—ILKLEY AND BOLTON WOODS.

ILKLEY is situated in the heart of the dale country, and is surrounded by miles of heather-clad moorland. The town itself lies in the valley of the Wharfe, the hills round it rising to the height of 1,400 feet, and in several cases to 1,600 feet. It is within easy access of Leeds and Bradford, and is served by an excellent service of trains.

The River Wharfe is one of the most beautiful of the rivers of the North of England, and from its source in the wild mountains around Ingleborough and Cam Fell down to Ilkley, a distance of some thirty-five miles, it passes through a succession of interesting and picturesque villages and fine scenery. In fact, Wharfedale is not only the loveliest of the Yorkshire dales, but will hold its own for beauty with any part of these islands.

Ilkley itself is well worth a prolonged visit, and abounds in fine material for the photographer. The moors, of course, are the chief attraction, and the bald escarpment of rock above the town, called the Rocky Valley, is a very striking feature of the landscape. Halfway up the hillside the white buildings covering the old Roman baths form a delightful picture against the green fells. The parish church dates from Early English times, and has a fine doorway with "dog tooth" ornament. The town is well supplied with dark rooms, and chemists, who supply every reasonable need of the photographer.



Ilkley from the Moors.



Bolton Woods.

Bolton Woods, six miles higher up the valley, is a peculiarly fascinating district, and offers endless scope to the picture maker. Amongst other places, one might mention the Valley of Desolation, with its blasted oak trees and fine waterfalls. Afternoon will be found the best time for photography in this side valley.

Bolton Priory is a famous ruin, whose praise has been sung by Ruskin and Turner. It is an offshoot of St. Mary's Abbey, York, and has some fine detail of the Norman and Early English periods. Many picturesque views can be obtained here. No permission to photograph is required, but both the Abbey and the woods are closed on Sundays.

The narrow rapids known as the Strid were made famous by Wordsworth's poem, the "White Doe of Rylstone." The River Wharfe here rushes through a narrow passage in the rocks with wild fury, and offers opportunity to the venturesome for daring jumps to the other bank of the river. The Strid forms the turning point for most visitors to the woods, but by keeping to the river a walk of about a mile and a half brings one to Barden Bridge, near which stands Barden Tower.

Barden Tower, the old home of the Cliffords, and now a picturesque ruin, adjoins the old church and farmhouse, which is partially built over the church. Simon's Seat, the highest point in the vicinity (1,500 feet), is an arduous climb from Barden, but the wayfarer is well repaid by the glorious views of mountain and river from the top.

The district known as Upper Wharfedale may be said to begin at Barden Bridge, where, as the course of the river is followed upwards, the softer beauty of Bolton becomes changed for one of a wilder and more rugged character.

Grassington, some ten miles above Bolton, is a delightful moorland village, with fine river scenery. There is also a large and interesting early British camp and earthwork behind the village; while, some distance below, the river falls over a rocky barrier and makes a fine cascade. Higher still the valley narrows and becomes wilder; passing the huge cliff called Kilnsey Crag and the delightful villages of Kettlewell and Buckden, the wild fells and mountains around Whernside and Ingleborough are reached, and the only way out of the valley is by crossing the high passes to Wensleydale.

But it is an extremely difficult task to single out one or two places in a district teeming with fine scenery, and the best advice one can give is to go and see it. It is certain that the first visit will be followed by many others.

HOLIDAY INFORMATION.

Kendal.

Although not the county town, Kendal is the largest and commercially the most important place in Westmoreland. It is situated on the Windermere branch of the L. and N.W.R., close to Oxenholme, the main line junction, and is eight miles from Windermere. The castle, now little more than a ruin, is interesting as the birthplace of Catherine Parr. The old yards and quaint houses of Kendal provide excellent work for the camera. Castle Dairy, a very old building near the railway station, is well worth a plate. The parish church is picturesquely situated on the margin of the river Kent.

Places of Interest.

Sizeroth Castle (3 miles), the residence of Sir Gerald Strickland, has a fine old Pele Tower.

Levens Hall (5 miles) has charming grounds and river scenery. A public footpath leads through the fine old avenue of oak trees. The gardens, with box trees cut into quaint shapes, are open to the public on Thursdays.

The river scenery, both to the north and south of Kendal, affords material for many pictures.

From Scout Scar (2 miles) a magnificent panoramic view of the surrounding country and Lake hills in the distance is obtained.

Long Sleddale (8 miles) is a charming Westmoreland valley, with typical mountain scenery.

Dealer (dark room), G. N. M. Birkett, 25, Tinkle Street, Kendal.

Launceston.

Launceston, a little town of 4,000 inhabitants, stands on the side of a steep hill, on the top of which is the ancient castle, now only a shadow of what it has been, but picturesque. There still remain a circular keep, a gateway, and the dungeon in which Fox, the Quaker was imprisoned. The grounds will also be found worth the expenditure of a plate or two. In the town are the Southgate and several interesting old houses. The church of St. Mary Magdalene has a beautifully carved granite exterior, and the little church of St. Thomas adjoins the recently discovered remains of the Priory, demolished in the reign of Henry VIII.

The valley of the River Tamar provides also many subjects for good pictures.

Dealer, W. Wise, Launceston.

Crieff, Perthshire, N.B.

A favourite centre in a beautiful part of Perthshire. There are varied and delightful walks, drives, and train excursions to be had in all directions. Crieff is often called "The Gate of the Highlands," and as this name implies, lies on the borderland overlooking to the south and east the open wooded and pastoral vale of Lower Strathearn, bounded by the softly swelling lines of the Ochil Hills, while to the north and west lie the rugged and stern masses of the Grampian Mountains.



The White Wells, Ilkley.

Objects of Interest.

Drummond Castle (3 miles). A fine specimen of an old Scottish castle, rich in tradition, beautiful gardens. Open to the public three days in the week.

Muthil Village (2½ miles). Interesting old ruined church.

Sma' Glen (5 miles by road). Wild Highland scenery, Roman camp at the foot of the glen.

Roman Camp, Ardoch, about nine miles by road (or by train to Greenloaning Station). One of the most ancient historic spots in Scotland.

St. Fillans Village, on Loch Earn (11 miles by road or rail). Described by Queen Victoria as "the most beautiful village in Scotland."

Dealers (darkroom), Harley and Watts, chemists, St. James's Square.



A Safe Light.

An exceedingly safe dark room light may be made by coating two pieces of glass with gelatine, and staining one of them in twenty grains of methyl-violet dissolved in half a pint of water, and the other in forty grains of tartrazine in the same quantity of water. After remaining in the dye baths for ten minutes or so, each plate is rinsed under the tap for a moment and put aside to dry. When dry, the plates are bound up together with a single sheet of tissue paper in between them.

A Simple Reducer.

An effective reducer can be made by dissolving in each ounce of water ten grains of copper sulphate and six grains of potassium bromide. The negative to be reduced is placed in this solution, and its surface speedily assumes a white colour. It is then rinsed and placed in clean hypo, when it will be found in a few moments to be considerably reduced. Great care must be used, especially at first, when one is unfamiliar with the action of the reducer, not to let the preliminary bleaching go too far, or the whole image may disappear in the hypo. The operation is finished by washing the plate in the ordinary way.

Sodium Sulphite.

Sodium sulphite, when bought, should be in crystals which are almost quite clear. If the crystals are an opaque white, or if there is any quantity of a white powder in the bottle, the sulphite is stale and has deteriorated. It must not only be good when bought, it must be kept good; and to ensure this the stock bottle must be well corked. If it is only used very occasionally, the cork should be driven in below the glass, and the cup so formed sealed by letting molten wax from a candle run into it.

Masking During Printing.

When large negatives are being printed, a great deal of modification can be effected by covering the glass side with tissue paper, on which work with stump or pencil may be put. It may not be generally known that when any part is required to print darker than the rest, instead of cutting away the tissue paper above it, as is done by some photographers, very much the same result can be got by using a little of a mixture of one part of Canada balsam to eight parts of turpentine, painting this on to the paper over the parts to be darkened with a brush. It at once makes any part of the paper to which it is applied transparent.

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS

I REMEMBER when I was at school, and was hauled up before the master to be reproved for some evil-doing, he used to exclaim, testily, "What d'ye mean by it, eh?" Looking back, I can see that the question—if he had genuinely hoped for an answer, which he didn't—was sensible enough in its way. "Comprendre, c'est pardonner"—to understand is to pardon. If that master had really grasped what I "meant by it" he would have been both less irascible and less amazed at my temerity.

In a different sense I am now in the position of that master. My difficulty as a critic of beginners' photographs is not to find faults and merits in them so much as to find what their authors mean by them. If I can penetrate their intention I can appreciate, far better, the result, whether bad or good. But because (though I honestly try) I fail only too often to perceive the precise intention of a picture I am afraid I must frequently seem unjust to its taker.

Here is a print, for example, called "To the Old Tower." What am I to make of it? As a technical exercise it is grossly wrong. Artistically, one might grant that it seems to have some purpose, though even artistically it is rather backboneless. But what is its maker driving at, anyway? He can



"To the Old Tower."

take a correctly-exposed negative: this I know, because he had entered another comparatively bright little print with this one. Oddly enough, I am bound to confess that its brightness did not save it from—well, paradoxically, from dulness! while this muddy, under-exposed fuzzygraph caught my eye and more than momentarily interested me.

In the top left-hand corner there is an excrescence which we may gather to be the "old tower"; in the foreground there is a vague lighter patch which might represent a road leading thereunto. On the right is a shadowy female figure—I think—and above her is a streaky tree. What does it all amount to? Nothing, that I can understand. Just so! If I *could* understand what this photographer "meant by it" I should perhaps be a more lenient judge.



"I feel rather queer." *By Edwin Bond.*

It is not only in what one must perforce call impressionistic prints that I have to try to surmount this non-comprehension barrier. Plenty of beginners who aim at actuality puzzle me likewise. Look at the technically unimpressionistic picture called "I feel rather queer." To my mind it presents a quite admirable composition: I like even the gawky but extremely alive attitude of the child. But what is the



In the Black Country, Evening. *By H. Wakeman.*

object of the thing? Does this photographer positively desire us to believe that he is representing a little girl who has turned dizzy with approaching sickness of some kind or who has recognised the preliminary twinges of a tummy-ache.

If so, all I can say is that he has weird taste. For observe the train of thoughts that on that assumption instantly and inevitably occurs to any photographic critic.

Either the small damsel was really feeling poorly, in which case it was ghoulish to photograph her; or she was posed for the part, in which case she was encouraged to play the actress in a highly unchildlike *rôle*; or else the photographer only thought of the title after making his picture, in which case it must be admitted that he has a most unpretty imagination.

Understand it I cannot, even though on the face of it one might label it a specimen of the most obvious actuality. For the intention underlying actuality in art is often as obscure as that enwrapped in impressionism. Nay, some impressionism, purely because it is impressionism, tells an extra clear story.

"In the Black Country, Evening" (p. 96), is a case in point. It is so simple, so honest an impression, that it hardly needs a title at all. It is realism too, of course, which, as I have pointed out before, is not necessarily the reverse of impressionism. And how easy it is to see what its author "means by it"; how refreshingly plain its intention is, compared with that of the technically better "I feel rather queer"!

A reader wrote to me some time ago complaining of my criticism of a print of his entitled "Dawn." It was genuinely taken at dawn, he explained, and in casting doubts on this I had unfairly accused him of dishonesty. I apologise, of course. The incident illustrates the very difficulty I am talking about in this article. His print did not—and does not now that I look at it again—convey to my mind a truthful idea of his motive. Although not a fanatical riser with the lark, I have nevertheless seen plenty of dawns, and a good many in Edinburgh, the city where he tells me his view was taken, for I visit Edinburgh several times a year, and generally arrive by a train which has travelled through the night. If I failed to recognise his "Dawn" was it my fault or his? Both probably.

It seems to me though, that the really simple and big pictorial subjects rarely if ever misfire, or fail to convey their maker's intention. Take a capital piece of realism like "A Morning Gossip." It is not possible to misunderstand the aim of an honest transcript from life of this sort, yet I cannot see that it is anywise pictorially inferior to the tantalising "I feel rather queer," or the obscure "To the Old Tower."



A Morning Gossip. *By J. J. Kirkbride.*



Beware. *By W. Hamilton.*

Here are a set of faces, each of them a character study, and each of them, because true, possessing a kind of intrinsic beauty. There is humour here, and pathos, too. Through the picture you get at its author, and perceive without an effort that he has both commonsense and an eye for essentials. In other words, you are able to get at him because he gets at you. You do not get at the authors of the other two because they do *not* get at you.

To "get at" your public, in pictorial photography, does not merely mean to show them the obvious. The picture called "Beware" is entirely obvious. There is no veil of mystery thrown over it such as that which drapes "To the Old Tower."

Notwithstanding this, I must point out that the author of "Beware" fails to get at me, to explain himself to me through his picture. I do not in the least see what he is driving at (though I understand his title better than I understand "I feel rather queer"), because I do not in the least understand why he took this scene.

What appealed to him in it? Its beauty? It is not over beautiful. Its truth to modern life? Certainly, the steam-roller and the telegraph pole are typical. They are not interesting, though; not in the smallest degree significant or impressive. "In the Black Country" is crammed with truth to modern life, and makes its success thereby. "Beware" fails.

I feel that it fails—to me—because I do not understand it. Its author may complain—as the author of "Dawn" more or less complained—that this is my fault, not his. Maybe so. But I feel, too, that the best workers are always lucid, and will make their meaning clear even to a thickhead like myself.

I have written on these lines this week to some extent in self-defence, if I may say so. This article, which I fear is somewhat obscure itself, is a sort of apology on my part for my failure at times to penetrate other people's obscurities, and my consequent misjudgment of them and their works.

Neither I nor anybody else can read a picture-maker's thoughts except through his picture. If that picture does not make his thoughts plain, then it is quite clear that nothing will make them plain—not even, I think, his own verbal expounding of the theme.

Portraits and Aims.

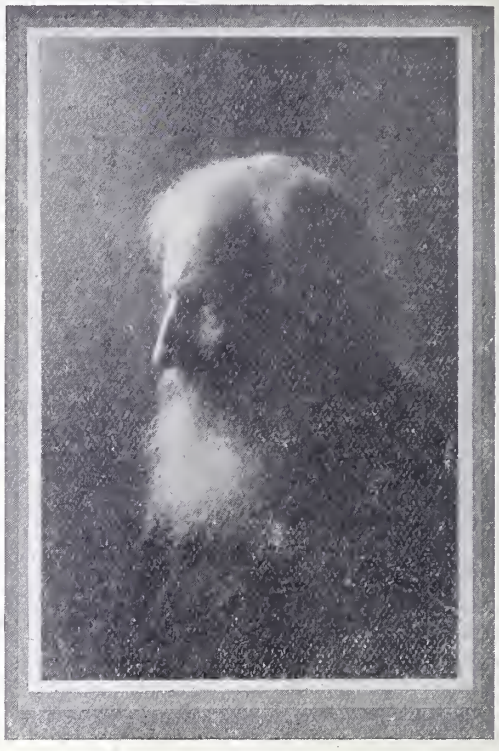
Illustrated by Pictures from Recent Competitions.

By W. Bolderwood. Special to "Photography & Focus."

THREE prints recently sent in to competitions in *Photography and Focus* lie before me, selected as being successful pictures in themselves, and also because they illustrate the particular point with which these notes propose to deal. Success in any branch of photography is not a matter of luck. The mere haphazard exposing of plates on subjects which happen to please us, without the least attempt at any analysis why they please, may be an agreeable pastime, but it can never be anything more. It can never lead to our work being put in the front rank, or even to it securing the moderate success of pleasing those in our immediate circle who are qualified to judge.

The fact is success of any kind in pictorial matters only comes to those who have a definite aim, who keep it before them, and strive to reach it. In the three prints herewith we see illustrated two distinct aims, and perhaps an intermediate one.

In the case of Mr. Beetham's "Portrait Study," there can be no doubt for a moment that the aim has been to make a portrait, as the title states. (Although it does not do to put too much dependence upon titles: the amateur has a sad habit of getting his picture first and selecting a tag or label for it afterwards.) Accordingly, everything that would interfere with the effect aimed at has been carefully eliminated. The background has the merest suggestion of a curtain, but nothing more. The clothing is hinted at, and is hardly discernible. The lighting has been carefully arranged to show up the strong rugged features and the snowy hair and beard. If anything, this lighting has been almost too concentrated. One could have borne well, and been glad of, a little better illumination on the side of the face which is at present in deep shadow; but the effect on the whole is a very good one, and the thoughtful expression of the face and the poise of the head, indicated merely by the line of the shoulder behind it, are in perfect keeping one with the other.



Portrait Study. *By Henry H. Beetham.*

This calls itself a "Portrait Study," and much as the latter word is misused by photographers, one feels that in this case it is very fairly applied to a photograph which is clearly the result of careful thought, and suggests most strongly that it is a portrait which is thoroughly characteristic of the sitter.

Going from this to Mr. Friend Smith's picture of "The Visitor," we realise at once that we have passed out of the sphere of strict portraiture altogether. In fact, although this may, by accident as it were, be an excellent likeness of the lady who acts as the visitor, this has been intended to be, and is, a picture which tells a story. The subject here is not the lady, but the act of visiting; and as this is a duty from which few ladies can escape, it is clear that it cannot be used for the purpose of making the portrait a more characteristic one. The pose is graceful, the arrangement admirable, and the picture accomplishes its aim quite as successfully as does Mr. Beetham's "Portrait Study," but the aim here has been quite a different one.

"Old Friends," by Mr. H. F. Hale, on the other hand, is in the strict sense a portrait. One feels on looking at this that the tuning of the violin is a characteristic action of the old



Old Friends. *By H. F. Hale.*

musician, and that it has therefore been used by Mr. Hale to help to make the portrait a more lifelike one. It plays almost as much a part in the whole impression as does the beard in the other portrait. At the first glance one would be tempted to put "Old Friends" and "The Visitor" in the same class, as pictures telling a story—one the tuning of a violin and the other a visit. But when we come to analyse them we see that this is not the case, and that the action in one case is general and in the other particular. We all open doors; few of us play violins. In the one the action has simply been taken as in itself the basis of an agreeable picture; in the other it has been made a most valuable assistant towards securing a good likeness. In fact, it has been used by Mr. Hale so effectively that we are tempted to overlook the serious defects which are present in his picture—the harsh high light on the hand, which draws attention to the exaggeration of that feature caused by the standpoint selected being too near, and the hard and ugly straight line of the bow. The bow is useful in its place, and it is in the right place, but if only it had been turned so as to be a mere dark line instead of a light one, how much better would have been the result.

Those who are still disposed to question the separate classification of these two pictures should try and imagine both with the sitters' faces turned away from the camera. "The Visitor" might still have much of its force and point; in fact, the pose rather than the face with it is the more important, but "Old Friends" would have lost both entirely.

The lesson that is to be drawn from these by those who are interested in work of this kind is that one of the essentials to a true success in art, as in everything else that is not a mere lottery, is to have a clear, definite, and, for the moment, at least, a single aim.

Before setting out to take a photograph of a friend we should definitely decide what it is we propose to do.

Do we intend to make it a portrait? Then, since the face must be of primary importance in portraiture, attention should be given first to the face, by studying how best the lighting can be arranged to emphasise its characteristics, and how the background may be employed towards the same end. Action, as has just been shown, may also be pressed into service to help to portray the personality of the sitter, and accessories of various kinds may be used for the same purpose. But with action, and still more with any material accessories, we must be constantly on our guard to prevent the secondary from taking the primary place.

Here is where so many fail, and not amateurs only, but professionals also. Paying attention to the things which are in the field of view, that they shall be properly rendered in the photograph, they omit the important question whether or not they should be included at all. Not only ought they to consider whether, in themselves, they help to make the portrait a more faithful reflection of the personality of the sitter, as in the case of the violin and bow; but also the point has to be decided whether they can be included and yet kept sufficiently subordinate not to attract undue attention to themselves. Even when the accessories might be justified on the former ground, the nature or the conditions under which the particular work is being done might make it advisable to exclude them. It might be contended, for example, that it would be a great help towards a characteristic likeness of Wilbur Wright to include as an accessory the flying machine with which he has made such a reputation; yet in view of the interest excited by the machine itself, and its unfamiliar character, if it were included it would inevitably take, if not the first place, at least one so prominent as to interfere very seriously with the effectiveness of the portrait.



The Visitor. *By C. Friend Smith.*

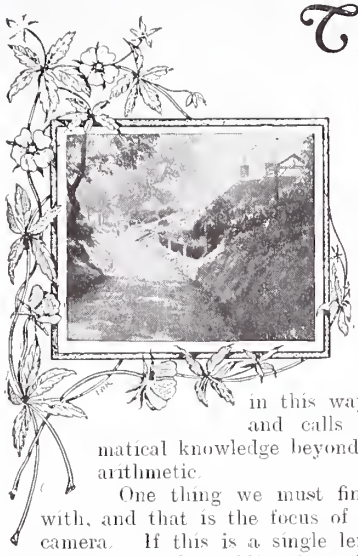
If, on the other hand, we decide for a picture that shall tell a story, then the primary place is no longer taken by the face of the model: pose and the surroundings become of the first importance. So many of the pictures of this sort that we see at exhibitions look as if they set out to be portraits, but had been diverted in the course of their production, and are accordingly weak and indeterminate.

It might be added that, although in pictures of this sort accessories take a more important place than in portraits pure and simple, it is only those accessories which are strictly germane to the subject, and are required to help to express it.

Portraiture, pure and simple, is not so common at photographic exhibitions as it is at exhibitions of paintings, and the reason seems to be the way in which the camera will reproduce details and accessories, whether we want them or not. The painter has to labour to put them in; the photographer, on the other hand, has to be continually on the *qui vive* to keep them out, or, at least, to subdue them into relative unimportance. The result of this tendency of the camera and lens is that, unless we are on our guard, we let the accessories play a more and more important part, and true portraiture is less often attempted, or is left to that mere snapping and recording of features which monopolise family albums and the mantelpiece.

The Effects of Combining Lenses.

By "Practicus." Special to "Photography and Focus."



MANY a photographer has attached some other lens, or magnifier, to the lens on his camera without knowing what to expect as the result of doing so. Yet the calculation beforehand of the effect of combining lenses in this way is very easy, and calls for no mathematical knowledge beyond that of simple arithmetic.

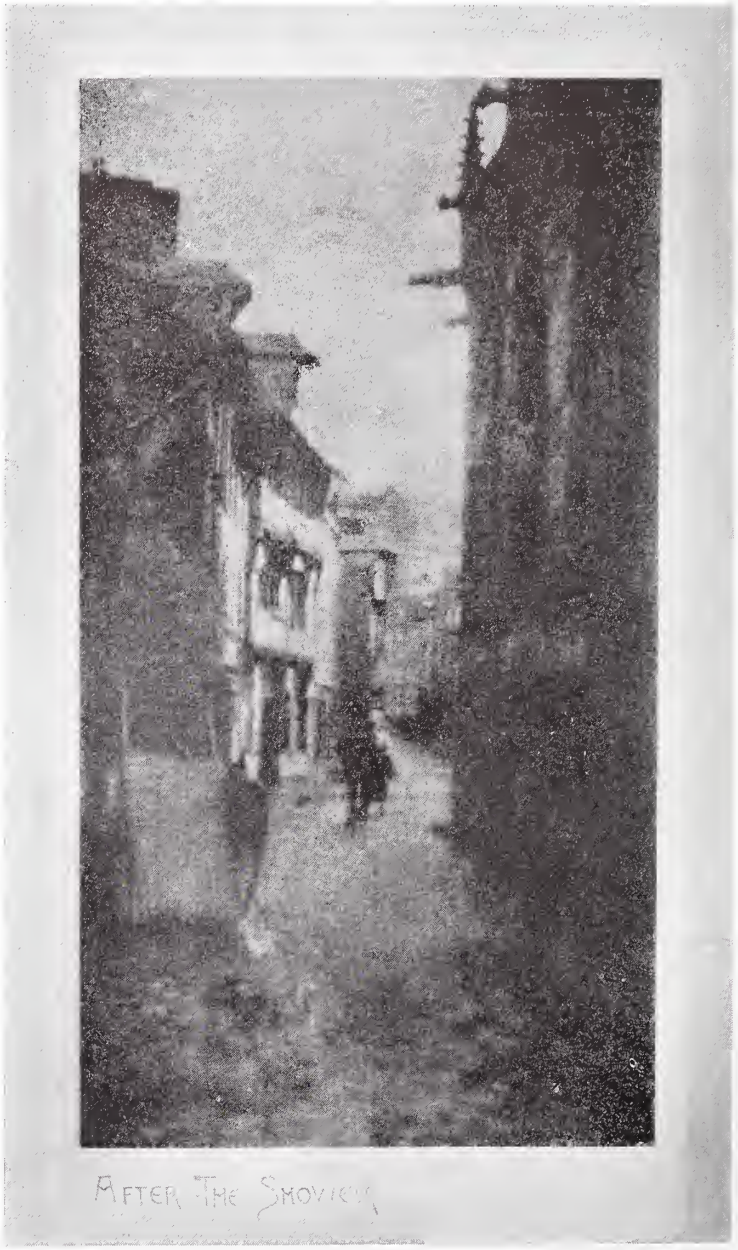
One thing we must find out to start with, and that is the focus of the lens in the camera. If this is a single lens, we can do this in sunshine by holding it against a foot rule and sliding it up or down the rule until it focusses the sun on a card held at the end of the rule, as the smallest spot of intense light that we can get with it. The distance of the lens from the card is its focus. If it is a rectilinear or other double lens, the distance is measured from the stop to the card. This does not claim to be a very accurate method, but it will do all that is necessary for our purpose.

Let us suppose, then, that we have a lens of 4½in. focus in the camera, and that we have a single lens of 9in. focus, and we want to know what would be the focus of the lens when the 9in. one is placed on the camera in front of the 4½in. one. The rule is to multiply the two foci together and to divide the product by the sum of the two foci added together after subtracting from it the separation of the lenses. The separation we may regard as an inch; it is not very easily measured, and if incorrect does not make a great difference in the result. So we multiply 9 by 4½, getting 40½, and divide 40½ by 9 added to 4½ with 1 subtracted; that is to say, 12½. So the combined lenses will have a focus of 40½ divided by 12½, or as nearly as need be 3¼. As the dimensions were in inches, the result is in inches also.

Inversely, we may want to know what focus lens we shall need to add to the lens on the camera to get some specified result. It is quite as easy. The camera lens, we suppose, is one of 7in. focus, and we should like to add a magnifier which would reduce it to 5in. focus. The rule is, multiply the desired focus by the focus of the lens we have after subtracting the separation, and divide the product by the focus of the lens we have after subtracting the desired focus. Again we will assume the separation to be an inch. We multiply 5 by 7 less 1, or 6, getting 30, and divide this result by 7 with 5 subtracted—that is to say, by 2. 30 divided by 2 gives us 15, so that a lens of 15in. focus will make our 7in. lens a 5in. one.

A very common requirement of the photographer is to know what focus magnifier he will want to bring nearer objects into focus. This needs no calculation at all. The focus of the magnifier must be the distance of the object. Thus if we have a camera of fixed focus, and we want to use it to give a sharp picture of something only twelve inches from the lens, we must fit the lens with a magnifier of 12in. focus.

So far we have referred only to "positive" or "magnifying" lenses; but negative or diminishing lenses may be used in the same way. Only when we add a negative lens to a positive one we increase, not diminish, the focal length of the latter. We cannot measure the focus of a negative lens like a positive lens, as it will not give a sharp spot of light. So to find its focus we first take a positive or magnifying lens and find the focus of that. Then we hold this lens and the negative as close together as we can and measure the focus of the combination. This new focus will be longer than the former one. Then multiplying the former by the new focus, we divide the product by the new after subtracting the former focus to get the focus of the negative lens.



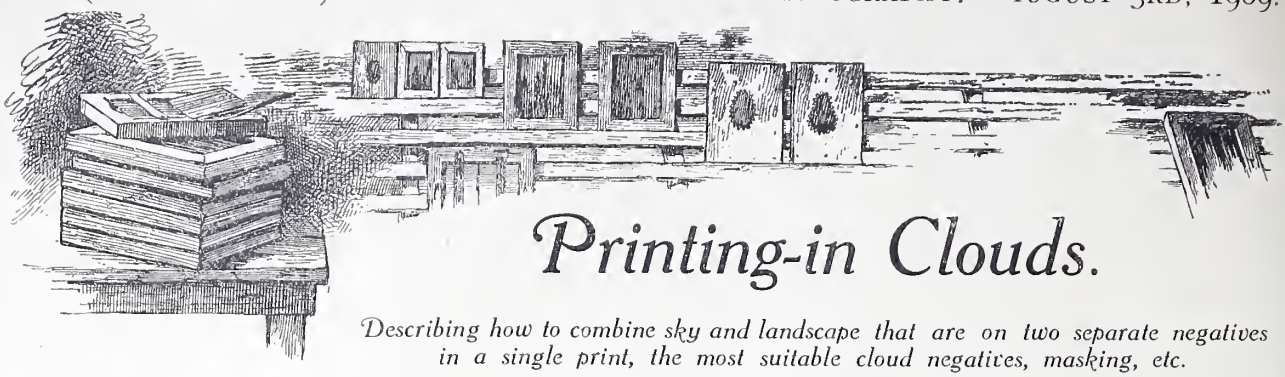
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Printing-in Clouds.

Describing how to combine sky and landscape that are on two separate negatives in a single print, the most suitable cloud negatives, masking, etc.

By J. Lewis. Special to "Photography and Focus."

THERE is a knack in printing in clouds into landscape prints, but it is one that does not seem very difficult to acquire, and if amateurs would only realise how easy the operation is, they would at least attempt it oftener than they do, to judge by the frequency with which "bald-headed photographs" are denounced. The real secret of success in this work does not lie in the actual printing-in operation, but in the preparation and selection of suitable negatives with which to do it.

The landscape negative that is to have a sky put to it must be one which, without such printing-in, will give us an almost perfectly white sky. To get this some sort of dodging is a necessity, for a landscape negative which without it will give a print with a plain white sky is almost certainly over-developed elsewhere also.

The plan of blocking out the sky with paint applied to the film side is one which no one with any spark of artistic feeling can tolerate for a moment. It gives a perfect, sharply-cut sky line, which reveals its artificial character at once by comparison with the other details near it, which, however sharply they may be focussed, are not as abrupt as the edge of the paint.

A method which can be used, and is very frequently adopted, is to make a print from the negative on P.O.P. There is no need to tone or to fix it. This print is then carefully cut in two along the sky line with a small pair of scissors, and the two halves, when cut, may be allowed to darken in the light until the image has vanished. The half which represents the sky is then adjusted on the glass side of the negative as accurately at possible, and when it is seen that the register is correct, looking straight down upon negative and mask, the paper is attached to the glass side with a touch or two of seccotine. A piece of ground-glass the same size as the negative is then laid on top of all, and on holding the negative up to the light, it will be seen that its sky now appears quite opaque, although without a harsh line, such as would have been got by painting on the film. Some workers print such a negative without any ground-glass; but the glass, putting its matt side toward the light when printing, will be found to be an advantage.

A negative blocked out in this way must be printed in diffused light. Moreover, it must be printed more deeply than is necessary when looking at it with its white sky. We must allow for this, remembering that when the print is finished what is at present an area of white will be represented by half-tone. It is owing to this being overlooked that so many landscapes at once "give away" the fact that a sky has been printed in to them.

How to Tell a Good Cloud Negative.

After the landscape negative comes that of the sky. Cloud negatives must not be too dense. When laid down upon a sheet of printed matter the print should be readable, even through the most opaque parts, with the greatest ease. It should not appear to have any part with clear glass on it, but should have nice gradation all over. The photographer who is accustomed to the ample density and vigour of a good landscape negative is almost certain at first to be tempted to over-develop his cloud negatives; or, if he makes



Sunshine and Shadows. *By J. A. Martin.*

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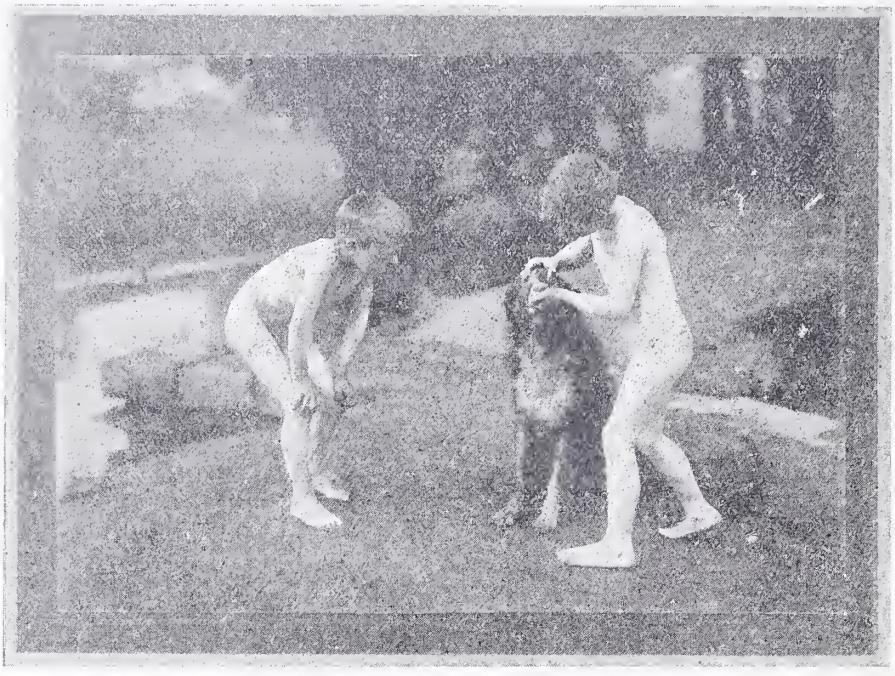
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one by accident which is quite right, he may think it a failure because it looks so very thin.

But a great deal more than mere technical perfection is needed in the cloud negative. In the first place, the lighting must be in harmony with the lighting of the landscape. It will never do to have the light falling from the left in the landscape and from the right in the sky. This is sometimes avoided by selecting a sky or a landscape which has no very definite lighting at all—a dull day effect. But this is no better, and sunlit clouds printed into a grey day landscape, or a sunlit landscape with a grey day sky, is just as absurd and inharmonious as if the lighting came from two opposite quarters.

Not only must the direction of the lighting in the two be the same, but the lines and masses, the form generally, of



A Question of Age *By J. Herbert Saunders.*

the clouds must suit that of the landscape. The clouds must not simply occupy part of the print, they must appear of it as well as in it, and should play their part, and one that has been thought out definitely by the photographer, just as much as any other part of the composition. Our aim must be to put in a sky that shall be so completely in keeping with the landscape, that the idea that it has been added subsequently shall never be in the least suggested. To ensure the sky looking perfectly natural, it will be necessary to take care that the clouds we print in are taken low down towards the horizon, and are not sensational in their lighting or arrangement. The photographer is tempted to point his camera upwards when taking cloud negatives, because the most decided masses of clouds are generally to be seen at a pretty high angle. This also gets rid of most of the trouble from telegraph wires, trees, chimneys, and other erections that will poke themselves into our cloud negatives. But it must not be done, all the same, or we shall not get cloud negatives that will appear satisfactory when printed in. For similar reasons "silver-lining" effects, sunsets, etc., are seldom what we require.

It may seem that such a list of requirements in a cloud negative is a very formidable one, and no doubt it seems so when set down in black and white like this, but it really comes down to a question of exercising a little commonsense and discretion, nothing more, but nothing less.

Having got the cloud negative we have to print it in to the landscape. For this purpose, and often for the landscape also, it is a convenience to use a large printing frame provided with a plate glass front, so that we are not bound to put down the sensitive paper exactly where the negative is, and may, if we wish to, use a piece of paper larger than the negative. If the paper extends beyond the negative, we must, of course, use a mask of black paper to keep it perfectly white.

Where the Knack comes in.

The cloud negative may easily be adjusted upon the landscape print, as the picture will be clearly visible through every part of it. When we have it in place, the second half of the P.O.P. mask is carefully adjusted on the glass side of the cloud negative, so that it covers the landscape, and protects it from any action of the cloud negative in that part. This is more intended as a safeguard than anything else, as we must not rely upon this mask for putting in the clouds, or the join will be certain to show. Having got the adjusting done, and a little time spent on this is well spent, the back of the printing frame may be closed up, the face covered with a piece of card for the moment, and the whole carried out into daylight and placed horizontally where it can receive plenty of diffused light.

It is at this stage that the knack of printing in clouds comes into play. The photographer takes a focussing cloth, gathered up into a bunch, and removing the card from the printing frame, quickly puts the cloth along the edge where the sky and landscape join, pushing it a little in here and a little out there, until it fairly well covers the masked part of the picture and encroaches everywhere on the sky part. The cloth must be kept moving up and down, and its outline varied from time to time, so that it does not show on the print.

What we have to aim at is to get the clouds darkest at the top of the picture, as they are in nature, gradually getting lighter and fainter as they approach the horizon. We can uncover the cloud negative for an instant or two right down to the mask, but must try and avoid anything like a definite line there. We must also steer clear of a defect sometimes seen in landscapes into which skies have been printed which takes the form of a stripe of light all along the join of landscape and sky. This defect is avoided by keeping the focussing cloth slowly moving up and down all the time, so that the actual vignetting of the sky into the landscape starts quite high above the horizon.

How Deeply to Print the Clouds.

The progress of the printing can be watched to some extent through the cloud negative, but we must be very careful not to overdo it. As soon as we see that any perceptible change has taken place, the printing frame must be taken inside and the back opened to see how far the printing has proceeded.

There are a good many landscapes which can have clouds printed in without any masks being cut, merely shading with a focussing cloth as may be required. The extent to which the process described here can be simplified must be governed by the circumstances of the particular case. But when the cloud negative is a good and suitable one, the process is not one that any amateur need think calls for a very great deal of skill. A very ordinary degree of handiness will enable him to print in skies so that they shall not by anything in their appearance suggest that they have not been obtained at the same time as the landscape itself.


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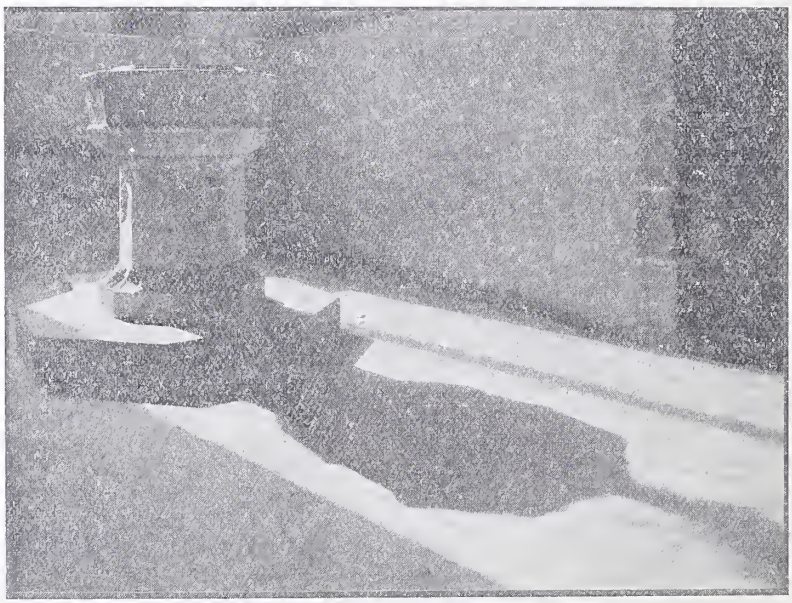
One word should be added on the legitimacy or otherwise of this form of photography. So long as it does not "give the show away" it is surely legitimate. Whether it would not be better to make it a hard and fast rule always to get clouds and landscape on the same plate is another matter. No printed-in sky, however cleverly it is applied, can be in true and complete harmony with the landscape beneath it; and if the want of harmony is not immediately perceptible, that is not to say that it is not there. The sky is bound up far more closely with the landscape than this method would suggest. At its best it seems to hold that clouds and landscape fit one on the other like a lid on a tureen, and to lose sight of the way in which they are dependent, each reflecting light upon the other, and every detail of one playing its part in determining the appearance of every detail in the other. But in default of a better it must serve, and its inherent imperfections are no reason why, having once decided to use it, we should not carry it out as perfectly as we can.

How I Painted a Background for Portraits.

By John E. T. Clark. Special to "Photography and Focus."

THE reason why comparatively few amateur photographers use a background, I attribute to the fact that there are not many who care to go to the expense of purchasing a good one, and those who are capable of painting one for themselves do not know exactly how to set about it. However clever the photographer may be at developing and printing, his portraits look poor and amateurish if the sitter is placed in front of the wall of a suburban backyard, with, perhaps, the houses in the next street showing in the distance. On the other hand, if a neatly painted background is used, there will be a certain finished appearance about the portrait. In this article I propose to explain how I painted a background measuring 8ft. by 9ft., at a cost of 3s. 6d. only.

The first purchase was nine yards of unbleached calico at 4d. per yard. This calico is very strong, and if tacked on to a roller and rolled up when not in use it will last with care for years. The piece was cut into three three-yard lengths, and these pieces were sewn together, the seams running horizontally across. This is done so that when rolled up it will be the same thickness all along the roller, whereas, if the seams were perpendicular, every time the roller went round it would be double as thick where the seams were to what it was in any other part. This would cause the colour to crack, besides rumpling and creasing the background.



Sunshine and Shadow. *By J. H. Williams.*

The calico, when sewn, was stretched on the wall of the workroom, not too tightly, the wall having previously had sheets of brown paper tacked over it, lest any of the colour should go through and spoil the wallpaper. The calico was simply fastened to the wall by means of tintacks, the tacks being placed about six inches apart.

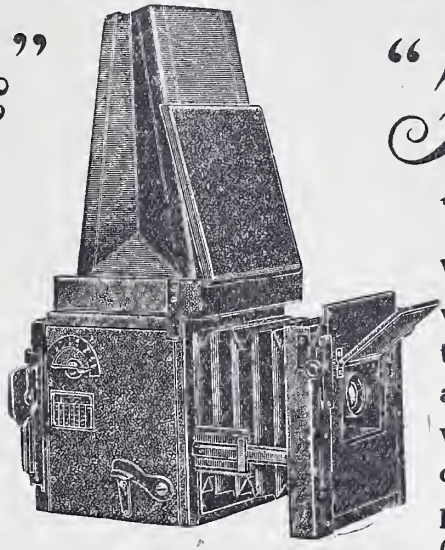
The next operation is to "prime" the calico; in other words, to prepare its surface to receive the colour. To do this I purchased two pounds of size at 1d. the pound, and melted it over the fire in a large tin, adding a little more water than would cover the size. This had to be stirred from time to time until all the size had melted. Just before removing the tin from the fire a desert spoonful of black treacle—not golden syrup—was added. The treacle makes the surface better, and causes the colours to flow more evenly. The mixture so made is stock size. Into another large tin was put a large knob of whiting, about the half of a pennyworth; it was covered with water and left to soak for about an hour. Nearly all the water was then poured off, and enough of the stock size poured on to the whiting to make a thin whitewash "priming."

With a large brush the calico was then covered with the priming, keeping the mixture well stirred all the time, and not putting it on too thickly, using the mixture while it was still warm. When dry, the calico is ready to be worked on.

If a design is to be put on the background it should then be sketched in with a carpenter's pencil, taking care to get the drawing exact before attempting the colouring. Then two pennyworth of vegetable black from the oilshop was put into a small tin and covered with water. It has to be stirred for ten minutes or so before it will mix, but with patience a thick black paste is the result. Three tins were then mixed of this vegetable black, whiting, and size, each to a different shade, and the large surfaces of the background were first covered, the finer lines being put in when this was dry. Only two brushes were used, a large sash tool, and a small fitch. Any straight lines in the design were ruled, using a 6ft. Venetian blind lath as a straight-edge for the longer ones. A different subject may be painted on the reverse side of the calico.

In painting the background I aimed throughout at softness, avoiding all hard lines. Nothing was outlined. I began at the top of the picture and worked downwards, so as to avoid splashing what had already been done as much as possible. It is important to remember that the colours will dry about four shades lighter than they appear when wet. None of the colours must be put on too thickly, or they will crack and peel off. Finally, the background should not be judged until it has been photographed. It will often appear far better in the photograph than it does to the eye.

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Telephone—4443 Central. Telegrams—"Fallowfield, London."



"The time has come, the Walrus said, to talk of many things."

WITH the possible exception of aviators there is no class of persons more consistently played the fool with by the weather than photographers. Personally, as far as my photographic work is concerned, I consider there are two sorts of weather—the sort I want, and the sort I get. The two kinds are the precise opposites of each other. If I go out armed with a pinhole lens to get some woodland pictures it blows a hurricane, so that long before the exposure is complete most of the trees included originally in the subject have been uprooted and blown into the next county. If when the stormy winds do blow I scuttle off to the coast to secure records of the angry waves dashing on the rocks and the great cloud masses driving across the sky, I arrive at the scene of operations to find a cloudless sky and a sea innocent of the faintest ripple. When I go to sports meetings there is a very passable imitation of the Flood; yet directly I get an order for some wet street scenes a prolonged drought sets in. Should a large number of daylight prints be required an uninterrupted Egyptian darkness prevails; if in despair I resolve to fall back on bromide, I find the water pipes frozen. Of course, I quite appreciate the advantage of change and variety in the weather, but the changes always come at the wrong time, and the varieties are always the wrong ones.

* * *

A very old friend and reader of this paper has sent me a tale. Except that he declares it to be true I have no reason to doubt the truth of it. A happily uneducated man asked a newly-elected town councillor whether he could explain the curious weather we have had lately. (The term "curious" is the mildest I have heard applied to the weather for many a long day.) Of course, the town councillor knew nothing about the subject. He was a town councillor. So the other person explained that according to his son's geography book the earth had an axis on which it spun round at a rare rate; further, that for years past American oil kings had been abstracting millions of gallons of oil from the earth; that, in consequence, the axis was running hot; hence the weather, earthquakes, high income tax, and a falling birth rate. To us photographers this matter is of vital importance. We are constantly being humbugged about by the weather, and if it is really due to the American oil kings that we get such mixed and inferior samples, I devoutly hope that in some future state photographers will be avenged. I hope that each one of us may be shown an oil king wrapped in shavings saturated in oil of his own procuring, and that, as a reward for our patience under weather trials, we may each be given a box of matches.

* * *

So far I have successfully refrained from becoming a councillor myself, because my opinion of councillors as a body is a very poor one indeed, and I think that photographers, even if only from a feeling of *esprit de corps*, should draw the line somewhere. If a photographer likes to be a bookmaker or a murderer in his spare time it may be overlooked, but if he deliberately becomes a councillor he at once brings discredit upon photographers as a class. No doubt a few photographers are councillors, just as a certain number are burglars, yet on the whole photographers manage to keep themselves reasonably respectable.

* * *

I wish, however, to modify to some extent my strictures on councillors, because there is one of them who, to my mind, has risen above his class and shone forth in the light of a hero. Owing to a recent decision in libel law I will call him Ajax, although I am by no means confident that no councillor of that name will accuse me of reference to himself. Ajax went to a meeting of his fellows armed with a camera, with which he proceeded to take "snapshots" of them. This is one of the most rational acts I have ever heard of in connection with a councillor. Yet instead of being applauded and encouraged he was called upon to desist instantly from his exposures of his fellows.

* * *

I repeat, Ajax was ordered to refrain from exercising his art in the decorous and stately council hall. Did he refrain? Rather. This was his refrain, "I am going to take photographs to-day, to-morrow, or any other day, if I think fit." The statement, comprehensive as it was, did not include night photography, but it made pretty plain the evident intention of Ajax to push on with his studies in portraiture in spite of discouragement. It seems to me that the right course of the mayor would have been to look as dignified as he could and request Ajax to commence with a full length picture of himself as head of the august assembly. Instead of which he requested Ajax to clear out. Then out spake again the doughty amateur, "I shall leave only by force and bloodshed." There was no bloodshed, but there was as much force as could be mustered by two beadles and the mayor's marshal, and Ajax and his camera were deported. He deserved a better fate. The only photographers to my knowledge who have risen to equal heights of heroic pertinacity are those who are canvassing for orders and who, having once got their foot inside the door of the servants' entrance, decline to withdraw it under six picture postcards.

* * *

My sympathies are entirely with Ajax. There would be a vast improvement in council meetings if those attending them devoted their time entirely to photographing each other. Of course, there would have to be certain restrictions. It would never do for each one to let off a flash powder at the same moment, or for one operator to illuminate his sitter by burning magnesium ribbon in front of some one else's lens who was exposing at the time. Also there would have to be a certain amount of give and take. If A has had a go at B it is only fair that B should be allowed to retaliate by a shot at A. And the mayor should always be matey enough to lend his chain of office, his chair, whiskers, and other insignia, to anyone who wishes to make use of them when posing for a fellow worker.

* * *

At any rate, I should think that what is good enough for Parliament was good enough for a local council; and everyone knows that a certain member of Parliament has photographed everyone there from the Lord Chancellor and the Speaker to the shoeblack and the scullery maid. I have never heard that he has been carted out by two beadles and a marshal. I should advise Ajax to chuck up his job as councillor and become an M.P. THE WALRUS.

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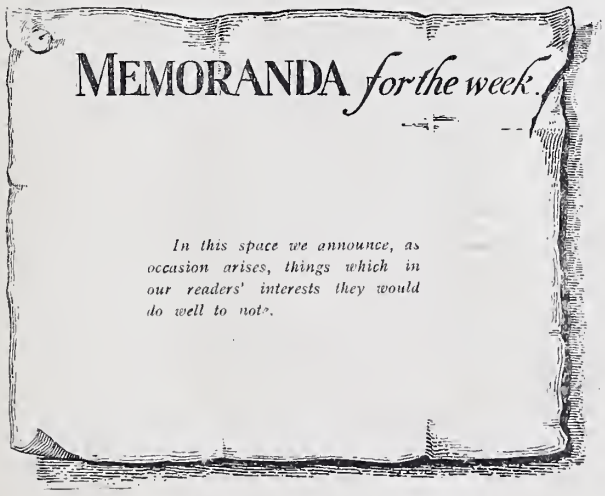
August 10th, 1909. TUESDAY. No. 1,083. Vol. XXVIII.

Plates Fogged in the Camera.

Scattered Light on the Plate. General Flare with Modern Lenses. Devices for Preventing it.

A DULL fogged negative which has none of the brightness and gradation which, however much we may believe in softness and delicacy, we all like to get is no uncommon experience nowadays, even to photographers of skill and experience. Such a negative may puzzle us as to the cause of its defect. At first sight one in inclined to say it is over-exposed, but there is none of that profusion of detail, especially in the shadows, which one associates with over-exposure. Under-exposed it may perhaps be, but if so it has been both under-exposed and fogged. Fogged by light or by developer it is not, as its edges are clean. Has any reader had this experience? Most of us probably have met with such.

The cause of these failures is in many cases (probably in all) an optical one. Photographers have demanded more and more of the optician, and he has given us more. He has given us lenses which include a very wide angle, so as to allow of an almost unlimited use of the rising front. As it is only rarely that anything near the whole of the cone of rays proceeding from the lens is utilised on the plate, it follows that in most cases the camera bellows are brilliantly illuminated as well as the plate itself, and, however carefully they may be blacked, a good deal of the light which falls on the bellows is certain to be reflected on to the plate.



A Surprising Result.

Anyone who doubts this can easily satisfy himself on the point by figuring out the size of a card which, supported in the camera, say a couple of inches in front of the focussing screen, is just large enough to prevent any direct light from the lens reaching the ground glass. A couple of card struts can be arranged to hold this card, after very carefully blackening it, at that distance. The lens is then turned towards a well-lit subject, and the illumination of the focussing screen by light reflected from the camera bellows is noted. The quantity of light which reaches the ground glass when none can fall on it directly from the lens, even when the apparatus is in good order, will surprise anyone who has not tried the experiment before. In fact, when we realise that whenever an exposure is made in the camera all this light is streaming on to the plate in addition to that which reaches it legitimately, we wonder however it is possible to expose a plate at all without hopelessly fogging it.

The real reason for this is, of course, that the actual exposure is very brief, and that the light coming direct from the lens to the plate is so much stronger than that which reaches it *viâ* the bellows that in ordinary circumstances the latter is comparatively unimportant, and its effect does not manifest itself appreciably when the plate is developed. But while this is the case under the conditions which usually prevail, when those conditions are altered the result may be altered also, and a negative such as we described above may be obtained. Nor is the photographer always aware when the conditions are altered.

To consider a very common case first. The lightest part of the image formed by the lens is usually that which represents the sky, and in landscape work a good deal of this falls on the bellows of the camera. If the camera is a square one with a reversing back, so long as the plate is used in the horizontal position nothing may be noticed, as no part of the plate is very near the bottom of the bellows, on which the sky

of the landscape is falling. (We see this even better when a small plate is exposed by means of a carrier in a large camera, when every part of the bellows is so far from the plate that defects such as those to which we are referring are quite unknown.) But if the plate is vertical, one end is close to the bottom of the bellows, and is exposed to risk of fog from light reflected from the brilliantly lit surface of bellows close to it. It will therefore be found that at that end of the negative the density is greater than at the centre, and the same effect, although perhaps not quite to so great an extent, may be noticed at the other.

Under-exposure Reveals It.

If the negative is fully exposed the effects, although present, may be so far masked or hidden as not to be noticeable at all, although, of course, they are there all the same, just as much as when the exposure has been very short. But under-exposure is particularly favourable to their manifestation. Many photographers who have met with this effect have been led away from its true cause by thinking that the denser ends of the plate represented the normal, and that the thinness across the middle of the plate was the defect, whereas, of course, the opposite is the case. The only effective cure is the provision of some kind of hood to the lens.

We have said that under ordinary conditions no trouble may arise on this score, but that when the conditions are altered, then fog may show itself. Under-exposure is one condition which favours it, but by no means the only one. If the camera is turned towards some subject so that there is a strong light just outside the field of view, the risk of fog becomes very great. This is a common state of things in interior work, but is by no means limited to interiors. There are many cameras with brightly plated fittings on the base-board. When the lens is drawn fully out these may be sufficiently outside its field to give no trouble at all, but when these fittings are well in front of the lens it may easily happen that reflection from them into it will give rise to trouble.

Scattered Light from the Lens Itself.

There is another cause of this fog which must not be overlooked, and it is found in the complexity of modern lenses, and especially in the number of reflecting surfaces which some of the best of them possess. It is almost, if not quite, impossible with many of these to do away with "flare" altogether.

A certain proportion of the light entering the lens is reflected from the surfaces of the glass on to the surfaces in front of them, and these in their turn reflect it again into the camera. All the optician can do is so to design his lens that this reflected light when it enters the camera does not do so in such a way as to form an image of any kind, but is as widely distributed or scattered as is possible. This he may do very effectively so long as the conditions are not severe, but as soon as they are, and the presence of one very strong or well-defined light is a severe case, then there is a great risk of either definite images of it, "flare spots" being formed, or of an indefinite image, which may extend over the plate as general fog.

Sky and Other Shades.

The remedy for all the defects is the same, and is a very old one. Either we must be content to run the risk of getting this fog when the conditions favour it or we must provide ourselves with some means of cutting out as much as possible of those parts of the view which do not actually figure in the picture. A piece of black paper held in position by a rubber band is an excellent temporary expedient, but black paper reflects light, and a hood or tube lined with black velvet or painted a real dead black is better. These are convenient devices for hand cameras.

A stand camera may have a couple of brass rods which can be drawn out, and over which the focussing cloth may be hung. For studio work, copying, etc., a similar device may be used, and the cloth carried forward as far as it will go without encroaching upon the actual picture on the plate, or the old device of an arrangement of cardboard forming a dark tunnel out of which the lens looks at its subject, may be fitted to the studio stand in front of the camera. In all outdoor work the most important thing after direct sunshine itself is to cut off the sky, on account of its great brilliance, while in indoor photography the thing to exclude is any window or other direct source of light.



Not only Buying but Selling Value.

One of the points to be considered when the purchase of a costly lens is under consideration is whether there is a reasonable prospect of the price being maintained, so that, should its owner at some future date wish to sell it, he may expect to get back at least a substantial share of the money paid for it. With many photographers this question is a very important one. They may want to have a fine lens, and may not be unwilling to pay the long price asked for it if some of the money may be readily recoverable when they come to part with it again.

No reply to such an enquiry can be very much more than a vague surmise, but we will give one for what it may be worth. The high price of the best lenses is due to (1) cost of manufacture, (2) patent rights, and (3) reputation of the makers. As far as cost of manufacture is concerned, there is no great prospect of reduction. It is more than doubtful whether the construction of lenses will at any future date be greatly simplified, while much of the expense of making these instruments is due to the care and refinement which must always be essential so long as they are to maintain their present stage of perfection. On this ground, then, we are not likely to see any great reduction in price. The second reason for their costliness (the patent rights, royalties, etc.) must inevitably vanish with the effluxion of time, and so the price of any particular design may reasonably be expected to be

reduced ultimately by whatever is represented by these. Different makers may use different figures to represent this element of value, but, to judge by past experience, it may be put down as on the average about one-third the retail price. The reputation of the makers when these are at the very tip-top of their class is usually a thing that is well maintained. Even when a business has gone to pieces and the quality has been lowered to the rubbish point the commercial value of the work turned out when its reputation was at its zenith does not seem to be greatly affected, so that nothing need be allowed on this score.

The matter may be summarised by saying that, in our opinion, if a lens is bought with due judgment to-day, and is properly taken care of, it should fetch at least half its price in seven or eight years time, even if at that date its design has been abandoned by its makers, and one-third its price after the lapse of two or three times that period, while so long as it remains a current pattern two-thirds, or even three-fourths, its list price might be expected. But this is limited to the work of the highest class, and there are modern lenses, as our advertisement columns often show, which are offered for sale second-hand at far below the list prices of their makers. The subject is one which calls for the exercise of a good deal of judgment, and the little advertisements of which so many are to be found at the end of *Photography and Focus* each week will be found to give a useful indication of selling value. Of course, this is not necessarily working value.

Pinholes and Backing.

Backed plates possess so very many advantages that there is a chance of overlooking the fact that there is anything at all which can be said against them. There is not very much, it must be confessed; but one of the crimes occasionally laid at their door is the formation of dust in the camera or slides, which, settling on the plates, gives rise to pinholes. This dust is far more likely to be met with when plates are backed at home than when they are bought ready backed, because the platemakers are alive to the importance of using a backing which does not give rise to dust. Most of the ready-backed plates on the market have a thick firm coating on the back, which is free from the slightest tendency to rub off; but some of the preparations used for backing at home contain an undue proportion of burnt sienna, and so are gritty and dust-forming. Before backing plates that are to be carried any distance before exposure, therefore, it will be well to apply a little of the backing to a piece of plain glass and let it dry. It ought not then to show the slightest tendency to rub off, or if it does there may be trouble. The remedy in home-made backings is to increase the proportion of caramel, as this is the material which tends to bind the backing to the glass. In fact, the real necessity for burnt sienna in a backing is not at all obvious, as plain caramel seems to do all that is required. While on this topic, we might add a word of caution on putting backed plates into sheaths. However good the backing may be, there is always the possibility of the sharp edge of the sheath rubbing off small particles of it as the plate is slid into the sheath. This operation, therefore, ought never to be carried out where any particles of the backing can fall either on to other plates or into the camera. With this precaution and properly backed plates there should be no greater risk of pinholes than with plates with no backing on whatever.

METHODICAL MACGEE.

When I want my apparatus, I have always got to hunt from the cellar to the attic, in the back and in the front, in the pantry and cupboard, in the drawer and on the shelf; for no one knows where things have got—I never know myself.

To contrast this mess and muddle with the method of MacGee is to make a marked comparison that's very hard on me. For Mac has got a cupboard where, in orderly array, every blessed thing he uses is securely stowed away.

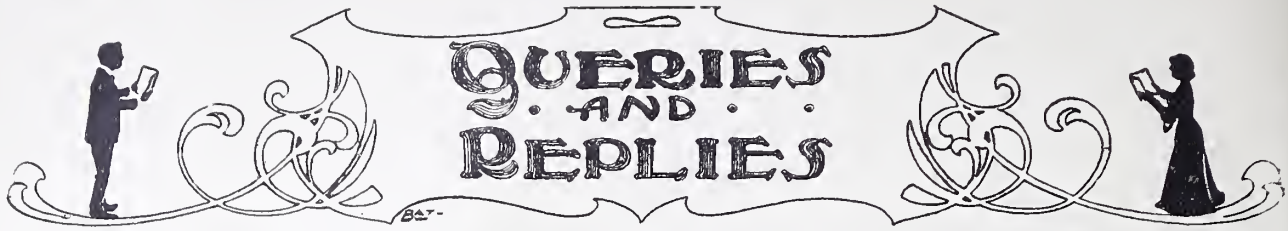
There are cameras and chemicals, a case of ortho. screens, and changing bags and meters and developing machines, and lenses and enlargers and a ruby lamp or two, and plates and films and papers, and his mountant and his glue.

There are tanks and racks and dishes, and dark slides and printing frames, and boxes full of negatives, all indexed with their names, and notebooks of exposures, with the date and time and place, and the stop and screen and plate he used in every single case.

Yet, if my own slack methods are not all they ought to be, I somehow still prefer them to the system of MacGee. For it means such lots of labour that (I can't arrange a rhyme) he never makes a print because he hasn't got the time!

Silver from Hypo.

The greater proportion of the silver in the dry plates which we use passes out into the hypo solution and is thrown away. The amateur who only works on a small scale will not find that it will pay him to take any trouble to recover the precious metal; but when a good deal of fixing is done, this is no longer the case, and it is economical to save the hypo baths for treatment. The simplest way of recovering the silver from them is to add to the hypo a little of a strong solution of sodium sulphide, such as is used for toning bromide prints. It is best to let the used hypo baths accumulate until there are a few gallons, and then to deal with them all at once, in a large jar. After adding some of the sulphide, a dense black precipitate of silver sulphide will be seen to form. The liquid is stirred up and left to settle. As soon as a little of the clear liquid can be obtained, a drop or two of the sulphide solution may be added to it. If a black precipitate again forms, it shows that enough sulphide has not been added to the hypo, and some more must be poured in and stirred up. This should be continued until there is no longer any colouration on adding the sulphide, when the jar may be left until the black sediment is all at the bottom. The clear liquid above may be thrown away, and the black sludge collected and put into a smaller jar and left to dry. When enough of this has been got together to make it worth while it may be sent to the refiners.



REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

CARBONA (Liverpool).—The largest stop is f/8.

MRS CROSS (Preston).—The details will be found in full on the competition page this week.

JANDSTICKOR (Felling).—It is not at all likely to be caused by using the match as a plate lifter; it looks to us like the effect of a leaky dark slide.

C.G. (Luton).—The remedy is to add a little bicarbonate of soda, the kitchen salt will do. The quantity is not important. Say 20 grains to a pint.

G.V. Wellington).—The negatives are very much underexposed. Whether there is anything else the matter with them we are unable to say from the prints.

WIZARD A (Highgate).—The camera does not figure in any list we have, and is not now on the market. You will have to measure the stops to find their F numbers

MOSS ROSE (Enfield).—It is best to cut them and put them in water for a few hours before photographing, otherwise you are sure to have movement or drooping with so long an exposure.

R.T.I. (Hyde Park).—It would only be throwing good money after bad. To judge from your description they are quite useless, and it would be best, therefore, to get a fresh supply of materials and begin again.

W. A. BURY (Glasgow).—The stripping paper, known if our memory serves us right as "Transferrotype," has not been on the market for many years. Very charming effects were to be got by transferring the picture on it to opal glass; but we suppose there was not enough demand to induce the makers to go on.

J. MELLOR (Bradford).—The manufacture of bromide and p.o. papers is certainly not a process to be undertaken by the amateur. The few formulæ that have been published are very old, and not at all likely to give results anywhere near those to be obtained on the commercial papers. These are prepared on lines which have not been made public.

W. TURNER (South Norwood).—The discrepancy is not one which we can explain; but as we have pointed out before, it is not safe to translate plate speed numbers by one system into those by another. There is no general agreement as to the way in which plate speeds should be estimated, even by any one system such as the H. and D., and two different makes may be quite different in speed, although both bear the same speed number.

ANTIQUE (Oxford).—A good result is to be obtained by making a cylinder of tissue paper some two or three feet in diameter and hanging it up so that the object is within it, with its back near one part of the cylinder. The lens may then be put through a hole in the tissue on the opposite side; and in this way a very even illumination can be secured. The work should be done in a good light, of course; and the plates backed and fully exposed. The subject is an excellent test of a photographer's technique.

PERSEVERANCE (Stockton).—The question is not one which can be answered definitely from the F number of the stop and the speed of the plate. In a case of this sort a very great deal indeed depends on the colour of the walls and on their nearness to the illuminant and to the sitter. In a small room of a very light character the exposure would be at a minimum, while in a large room with dark walls six or eight times as powerful a light would be needed to get as fully exposed a result in the same time. There is nothing for it but to try the experiment.

CONSTANT READER (Chatham) sends a negative and asks if it is a good one. *A.*—We can only repeat what we have said so often before, that when a negative is laid film downwards on a sheet of white paper, the edges which have had no exposure at all should be as clear or almost as clear as plain glass, except round the sky portion where a little halation and irradiation may have taken place. Judged by this standard "Constant Reader's" negative is a very bad one. There is almost as much deposit on the unexposed as on the exposed portions. Whether this is due to plate developer or dark room light we cannot say, probably to the two latter.

STRIPPING (Belfast).—None is now made.

W.K.R. (Cardiff).—The developer given on the box is the one to use.

D.L.I. (Barnard Castle).—It is a very satisfactory bit of apparatus.

T.P. (Hodor Oak).—The letter has been sent on to our contributor as requested.

BORIC ACID (Devizes). — It is of no practical value whatever, as far as photography is concerned.

HAL (Perry Barr).—The reason given is quite correct; good work is impossible in such circumstances.

PHOTO (Tiverton).—The letters are all given on the Watkins Speed Card, to which we must refer you.

ENQUIRER (Croydon).—The whole of the information that has come to hand has been published in *Photography and Focus*.

ESTOR (Maze Hill).—The suggestion is one for which we are much obliged. If we can adopt it in the near future we will do so.

SCOTTIE (Tunbridge Wells).—We are sorry we cannot oblige; but we do not think they would interest one per cent. of our readers.

R.F.W. (Brislington).—There is clearly something wrong, and the only safe course to pursue would be to send it back to the maker.

SIGMA (Bristol).—The solution keeps perfectly, whether in a stoppered or a corked bottle, and requires no special precautions of any kind.

C. GRANT (Edgbaston).—The apparatus is one of the best of the cheaper kinds; but, of course, is not so good as can be got for the higher price.

R.C.R. (Carlisle).—So long as the moon does not shine directly on to the plates, moonlight in the room in which they are changed will do no harm whatever.

G. THOMSON (Hull).—The quotation was from our own columns evidently, made as so many more are made quite without acknowledgment. Many thanks for sending it on.

FIXUM (Sheffield).—You do not say what P.O.P. you are using; but if the maker gives a formula for a combined bath, you could not do better than use that. If not, write us again.

STALE (Godalming).—That is what seems to be the matter; but a good deal of the markings can be cleared off by immersing the plates for a moment in a ferricyanide and hypo reducer.

F. M. PEACHEY (Hornsey).—You would do well to go to a firm like Houghtons, Ltd., tell them what it is you prefer, or what you want to do, and be guided by their advice. It is difficult to say more, from the particulars you give.

G.T.V. (Ellerslie).—The exposure with f/22 is twice that with f/16, which in its turn is twice that which f/11 requires. "The Hand Camera," by Wastell and Bayley, price 1s. nett, or post free from our publishers for 1s. 2d., should be helpful.

M. BOOKING (Wisbech).—There is a decided advantage in using a carbon transparency instead of a dry plate transparency in enlarged negative making, whether the transparency is made on the special tissue or not. The special is preferable, however.

G.E.M. (Southampton).—After all it is what might have been expected. The publication was so wide that it was certain to be seen by those interested. A little attention to the contents of our columns would have saved you all the trouble and all the expense.

LONDONER (Porto Rico).—An alum bath used after development and before fixing should answer. One ounce of alum to the pint of water is a suitable strength. The plates must be well washed afterwards before fixing. As a hot weather developer amidol is to be preferred.

DUMMY (Portsmouth).—Your *nom de plume* is not a just one; the question is reasonable enough. You have overlooked the fact that when the nearer objects are focussed the distance is thrown out of focus, unless a smaller stop is used, and in hand camera work that can not be done.

W. LEWIS (New Brighton).—It is promised for September.

F. ERNEST (Portsmouth).—The first-mentioned is the better.

DOUBTING (Kings Heath).—The reflex certainly, the other is almost obsolete.

MADAN MOHAN (Jhalrapatan City).—We have sent on the print as requested.

MALHAM (Forest Hill).—It would be much better to get one of the concentrated developers as you suggest.

W. H. RAMSBOTTOM (Long Lane).—One part of the solution to ten of water is a convenient dilution for the purpose.

F. ARNOTT (Leeds).—These figures are not, strictly speaking, interchangeable at all; but you will not be far wrong if you treat it as Wynne 100.

SIGMA (Guildford).—The rules of our competitions are printed in the paper once every month; and we must refer you to them for details. You are not eligible for the Beginners' Competition.

J. ROBINSON (Belfast).—Your procedure is perfectly correct; except that you do not leave the plate in the developer for a sufficiently long time Try doubling it; we doubt if even this would overdo it.

FERRO-PRUSSIATE (Chingford).—The details would take too much space to be given in this column. You will find them at length in "Ferric and Heliographic Process," by Brown, price 2s., or post free 2s 3d.

N. P. ORAM (Widnes).—We have pointed out with some detail in two articles, less than three months ago, that there are practically no restrictions on hand camera work. You are not in the least likely to be interfered with.

CONSTANT READER (New Barnet).—It *can* be used, but the results are not as satisfactory as they would be were the instructions of the makers followed strictly. Nothing is to be gained by departing from them except trouble.

T. H. R. RAWSON (Edgehill).—If the plates have been carefully packed after exposure, in the original wrappings, they ought to develop up as easily and give as clean and bright negatives as those which were developed on the spot. Why not try a plate and see?

P. T. ORBY (Ennistown).—There is no such method, and the only way to succeed is to get the exposure right in the first instance. Such devices used to be published, but we cannot say we recollect the particular one to which you refer. None were of any value, and are not used now.

C.J. (Fencehouses).—The formula is a good one, but is not intended to be used without dilution. You could add ten parts of water to one of the solution with advantage; but there is no fetish in formulæ of this kind, and the sooner you realise this the sooner will you be able to do good work.

MISS ROBINSON (Peterborough).—It is quite easy to remove the whole of the image by soaking the plate in a mixture of potassium bromide 50 grains, copper sulphate 50 grains, water 5 ounces. It is then rinsed and placed in clean hypo, which should leave nothing but clear gelatine. It is then washed and dried.

JOURNAL (Dover).—Probably the colour is due to a trace of green fog, perhaps brought about by stale plates, or by warm developer. We do not think the hypo has anything to do with it, but it is just possible the cause may be there. If you want to avoid it in future we should recommend you to add a little potassium metabisulphite to the hypo solution, say a quarter of an ounce to the pint.

W. GEORGE (Perry Barr).—The negative has been sent back to you. It has all the appearance of one which has been light fogged as it lay in the dish. The long edge which is almost free from fog was, we imagine, the one which was in the shadow of the edge of the dish. It would be well (1) to look at the glass or fabric in the dark room lantern, and (2) to make a practice of of keeping the dish covered during development.



SALT WATER. A reader says that in his experience with sea water for photographic purposes, it must be thoroughly washed out, and should only be used as a last resort.

A DARKROOM MYSTERY. A solicitor named H. S. Ruddle, of Greenwich Road, was found suffocated in his dark room. It was stated that he had been experimenting with calcium carbide, and the jury at the inquest returned an open verdict.

NOT CARBON PRINTS. A firm of photographers in Southampton pleaded guilty to selling as "carbon prints" prints which it was proved were silver prints. A fine of three guineas was imposed, and an assurance was given that it should not happen again.

BIRMINGHAM PHOTOGRAPHIC SOCIETY. The exhibition will be held in February, 1910. Entry forms for foreign workers may now be obtained from the honorary secretary, Lewis Lloyd, The Hollies, Church Road, Moseley, Birmingham.

AUTOTYPE ENLARGEMENTS. The Autotype Co., of 74, New Oxford Street, London, W., has issued a trade price list of enlargements. The company will be pleased to forward a copy to any professional photographer on application.

PHOTOGRAPHIC PLATES FOR THE FAR EAST. According to "Commercial Intelligence" a company has been started near Yokohama for the manufacture of dry plates. It hopes not only to supply the demand of Japan, but also that of the Far East. The Japanese imports of plates have been of the annual value of £25,000 for the past three years.

HOT WEATHER TROUBLES. The "Photo Era" points out that differences of temperature of the different solutions cause frilling. The danger of this can be greatly diminished by the use of formalin and an acid salt in the fixing bath. One ounce each of formalin and potassium metabisulphite added to a gallon of the usual four ounces to the pint hypo solution furnish an excellent fixing bath for plates, films, gaslight and bromide papers for summer use. Formalin also facilitates rapid drying, which is important if streaks are to be avoided. Negatives should always be dried in a cool, shady place. A breeze, natural or from an electric fan, is an advantage. Water from city mains is usually rather cool if allowed to run for some time, and, even though a little warmer than the chemical solutions, will probably do no harm while washing negatives if they have been hardened with formalin.

A USEFUL PENNYWORTH for the dark room is a cardboard clock dial, to remind one of the time when various operations were started. It can be obtained for a penny at most toyshops, and, used in conjunction with a working clock, is very convenient.—V. A. BURNETT.

"PHOTOGRAPHIC FACTS AND FALLACIES." An interesting little booklet bearing this title has been issued by Messrs. Burroughs, Wellcome, and Co., of Snow Hill, London, E.C. It deals with the merits and advantages of tabloid chemicals, and will be sent free to any reader who may apply for it.

JOHANNESBURG PHOTOGRAPHIC EXHIBITION. An exhibition is being arranged by the Johannesburg Photographic Art Circle for November 3rd to 6th. It is limited to South African work, and our readers in that part of the world are advised to apply to Mr. Harold Smith, of 71, Cuthbert's Buildings, Johannesburg, the honorary secretary, for full particulars.

Photographing Silver.

TO reproduce silver articles successfully in a photograph is not so easy as it would appear at first sight. There is more to be done than actually focussing and removing the cap. The highly polished surface of silver and plate has to be reckoned with, and it may be said that a really satisfactory method of overcoming the reflection on the article photographed has not yet been discovered.

One of the most simple plans that will effectually remove the "glare" of the polished surface is to dab it carefully with putty. It will be found, however, that the shape of the piece of putty used will appear after every impression, and it will, therefore, be necessary to go over the surface again and again. To remove every mark or line made by the putty is an impossibility, but the result will undoubtedly be better than the straight black and white streaks caused by the intense reflection of the light.

This reflection is so strong in some instances as to cause halation. Again, it will often be discovered that a reflection of the photographer appears on the silver, or other polished article he is photographing; and as this reproduction of camera and photographer is, of course, much distorted, the result becomes almost ludicrous.

Another method, and one that is successful when taking hollow-ware (cups, bowls, etc.), is to place a piece of ice inside the object. This will cause condensation on the outside of the article, which will have the effect of softening the "glare," or intense reflection, of the light. There is a danger of the minute drops of moisture running down the article at any moment, in long streaks, so that the exposure must be made immediately the condensation has sufficiently softened the appearance of the surface. —"The Globe."

BIRD PHOTOGRAPHY. That very wary bird the Water Rail forms the subject of some remarkable photographs by Miss E. L. Turner in the August issue of "British Birds"—a periodical published monthly by Messrs. Witherby and Co.

GLOSSY SPECKS ON CARBON PRINTS. According to the current issue of "Camera Craft" the glossy specks, which sometimes make their appearance in carbon prints on drying, and which are caused by imperfect contact between the gelatine film of the print and its paper support, can generally be removed by soaking the finished print in a solution made by adding one ounce of glycerine to six ounces of water. This treatment will soften the hard gelatine which causes the shining silvery specks, and th print will nearly always dry down without their reappearance.

COPYRIGHT IN FACES. The "South Wales Daily News" reports two questions that were recently decided in an Australian Court. Two defendant. in a criminal case that attracted much local attention claimed £500 damages from the Melbourne "Herald" for libel and infringement of copyright in giving their portraits along with the evidence. The Judge directed the jury that there was no breach of copyright, inasmuch as the photograph had not been registered. Neither was there any libel, as the likenesses were excellent, and the report fair and accurate. The jury returned a verdict in accordance with the Judge's direction.

City Pictures.

A WRITER in the "Westminster Gazette" says: "At a moment when we are all thinking rather of holidays than of the town it may seem inappropriate to urge that our cities are worth more attention than they receive. Yet on a Sunday or a Bank Holiday the centre of London, or at any rate the City, is almost denuded of population. Apart from the main thoroughfares one can use a stand camera without inconvenience.

"An infinite variety of pictures can be obtained—pictures of buildings new and old, of peeps of beauty that one never notices in the hurry of business.

"The beauty of London has been extolled by the painters, but it should appeal even more directly to the photographer, for it is a beauty of monochrome, every phase of which can be rendered by the camera. Those mysterious hazes, that quiet play of light and shade upon street and building, can be caught by the lens as they cannot by pencil or brush.

"Moreover, the photographer has the advantage of speed. He can seize down a particular effect though it lingers only for a few seconds. He is not dependent upon memory for the beautiful moments. He can include the passing vehicle or the pedestrian necessary to fill out the composition. He is lord over the artistic phases of the Metropolis."

Hydrofluoric Acid for Cleansing Bottles.

I have several times noticed hints concerning this subject in *Photography and Focus*, but it has surprised me to note



Christmas Waits (*see page* 121). *By Sydney J. Roderick.*

that no reference has ever been made to the use of dilute hydrofluoric acid in this connection. I thought, therefore, it might perhaps be worth while to mention that about an ounce of commercial hydrofluoric acid poured into a one-pound guttapercha bottle and filled up with water forms the most efficacious bottle-cleaning solution I have ever come across.

To use it, one fills the bottle or flask to be cleaned right to the brim with the solution, leaves it to stand about a minute or so, then pours the solution back into its stock bottle, and immediately well rinses the article cleaned under the tap.

In very obstinate cases this cleansing operation may be repeated two or three times, and the bottle well shaken during the application, etc. The only things that resist this treatment are vegetable oils, such as linseed oil; mineral oils are cleaned off immediately, the glass being left perfectly free from grease.

To anticipate any objection that may be raised on the score that the acid acts on the glass, I may say that the action is so slight during the short space of time it operates that the process can be used for cleaning burettes, etc., which by reason of their shape are very difficult to cleanse thoroughly by any other method.

A friend of mine—a very accurate analyst—found on investigation that no appreciable error was introduced into the reading of a burette after being cleaned several times in this way.—NOEL HEATON.

The Week's Meetings.

MONDAY, AUGUST 9TH.

Kinning Park C.C. Committee Meeting.

TUESDAY, AUGUST 10TH.

Batley & D.P.S. Wintersett and Ryhill.
Hackney P.S. Portfolio Evening.
Nelson C.C. Impressions *v.* Photographs.

WEDNESDAY, AUGUST 11TH.

Everton C.C. "Carbon Printing." W. A. Hooker.
Rugby P.S. Barby and Welton.

SATURDAY, AUGUST 14TH.

Small Heath P.S. Broadway.
Halifax C.C. Lightcliffe.
Shettlestone & D.C.C. Gartlock and Lockend.
Bootle P.S. Eastham.
Coventry P.S. Sutton Park.
South Suburban P.S. Belvedere.
Oliver Goldsmith P.S. Shirley.
Preston C.C. Samlesbury.

MONDAY, AUGUST 16TH.

Walthamstow P.S. Print Criticism.
Wallasey A.P.S. "Toning Bromide Papers." W. Hayes.
Bowes Park & D.P.S. Affiliation Lantern Slides.

☞ Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

SUBSCRIPTION.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
Twelve Months	6	6	Twelve Months	10	10
Six Months	3	3	Six Months ..	5	5
Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

REMITTANCES.—Postal Orders, Cheques, etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

EDITORIAL NOTICES.

ADDRESS.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.

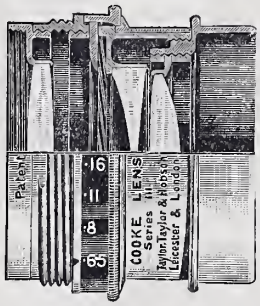
PRACTICAL NOTES ON PHOTOGRAPHIC LENSES

Special to "Photography & Focus"

Messrs. Taylor, Taylor, and Hobson's Series III. Cooke Lens.

THE photographer who looks through the price list of Messrs. Taylor, Taylor, and Hobson, the firm which makes the Cooke lens, may wonder whence it takes its name, for as far as he can see there is no "Cooke" concerned in it at all. Cooke was not its designer, as his name is given in the book as Mr. H. Dennis Taylor, whom the reader no doubt promptly puts down as a member of the firm just named. It is not so, however. A firm of opticians famous all the world over for astronomical telescopes and similar apparatus is Messrs. T. Cooke and Sons, of York, and Mr. Dennis Taylor has been closely connected with them for many years. Hence the photographic lens which he designed was very naturally christened after the firm with which he was associated. That his name is borne by the firm which makes the Cooke lens is, we believe, merely accidental, the Messrs. Taylor of Taylor, Taylor and Hobson, not being related in any way to Mr. Dennis Taylor, of T. Cooke and Sons.

The Cooke lens was an early comer in the anastigmat field, and is one of a most original design. It is the simplest in construction of any of them, consisting of three simple lenses, uncemented, separated by air spaces, and arranged, in general, on the lines shown in the attached illustration, although the different series differ amongst themselves somewhat.



The Series III Cooke lens.



Cooke extension lens.

The particular Cooke lens which is the subject of this article is known as the Series III., working at f/6.5, and has been selected as being the most generally useful to amateurs, fast enough for all kinds of hand camera work, yet not so fast as to be cumbrous or prohibitively costly. The half-plate lens of this series, for example, of 7½in. focus, costs £5 12s., and the 5in. lens for quarter-plate £4 2s. The illustration will give a good idea of its construction.

A very rapid form of the Cooke lens is becoming very popular amongst professionals for portraiture. This is provided with a special form of mount which enables the user to introduce a certain degree of diffusion of focus at will. This he can do from the back of the camera while focussing, so that he can study the effect while making the change, without having to look off the ground-glass at all. The Cooke design is also very extensively used for process work, for which its rapidity, fine definition, and flat field make it particularly suitable.

It is the privilege of the bad workman to blame his tools, yet this we must say for the Cooke lens—it is one of those rare pieces of apparatus which are extensively used, yet of which one never hears complaints. This is due not only to the good qualities of the design, but to the absolute uniformity of the manufacture.

The image is a brilliant one. The corrections of the lens are of the most perfect character. Astigmatism, coma, flare, spherical aberration, all the ills from which the uncorrected lens suffers, are conspicuously absent. The definition is of the crispest character, the field flat, and large enough for the most liberal rise of front. For example, the half-plate lens just mentioned will more than cover a plate 10 by 8, and, in fact, it may be used as a wide angle lens on this size with complete satisfaction. As a hand camera lens this is an ideal instrument, and for reflex work it will be found most suitable, while for those who require it there is Series II., which works at f/4.5, and is very popular, not only for this purpose, but also as a portrait lens.

The separate components of the Cooke lenses cannot be used by themselves; but by removing the back lens and substituting for it a Cooke extension lens the focus of the combination may be increased about fifty per cent. One of these is shown in the illustration.

No account of the Cooke lens would be complete which did not contain some reference to the standard flanges and screws which its makers have brought to such a pitch of accuracy and convenience. Those to whom the system of Messrs. Taylor, Taylor, and Hobson is not known may be interested to learn that all their lenses are supplied in flanges of standard sizes and threads, so that lenses of anywhere near the same size will all screw into the same flange. But this is the least of the conveniences of these mounts. On flange and on lens will be found marks, and when these marks are brought together the threads of the screws at once engage, and three complete turns fix the lens firmly in position. Similarly when unscrewing the lens we know that after three turns it will come away from the flange. The threads on both screws, instead of gradually tapering off, are cut off abruptly, so there is no fumbling about to try and get them to engage; they do so at once without effort.

A word, too, may be added about the model factory in which these lenses are made. Factory design and management have been a hobby with Messrs. Taylor for many years, and the result is that a visit to their works is an education in the way in which such things may be done. Nothing to enhance the quality of the work turned out is left undone, and the comfort, health, and interest of everyone employed are studied to the utmost. The result of all this has naturally been reflected in the products of the factory, and the reputation of the firm spreads steadily year by year. As a case in point, it may be noted that, in spite of hostile tariffs which some might regard as prohibitive, the Cooke lens is making its way extensively in the United States.

Such is the Cooke lens, and such are the conditions under which it is produced.



Glazing Cards.

THERE is nothing at all in it. Just dry the cards after they come out of the last washing water, and then rewet them and squeegee them, and you will have no trouble whatever with the prints sticking to the glass or to the slabs.—So far the expert. He never *does* have trouble; so no doubt he is right. But you and I, and all the other "men in the street," or garden amateurs, know that we may take the expert's advice and find our cards sticking firmer than ever. The plain fact of the matter seems to be that some papers in some conditions are not amenable to this simple treatment, as we find out by the process of spoiling a batch, and every reader of *Photography and Focus* will feel grateful, I doubt not, for a simple hint by which this sticking can be annihilated. It is this—use formaline.

Since I was first put up to its use by a professional photographer, I have never had a card stick. It is not expensive. A Winchester quart stoppered bottle can be got from the druggist for a few pence. It is well washed out and four ounces of formaline as sold are poured in, and the bottle filled up with water. This forms the stock solution, which will last a long while. It gradually loses its strength, but as long as it smells of formaline it is safe to use it, and that will be for some months as far as the ordinary use by an amateur photographer is concerned.

When the prints are sufficiently washed, they are drained for a moment and then plunged one by one under the surface of this dilute formaline solution in a dish. They should be left in for five minutes after the last was put in, and shifted once or twice to make sure that the liquid can act on all of them. They are then put back into the washing water for a minute or so, given one more change and may be squeegeed straight away, without any fear of sticking. The formaline is poured back into its stock bottle for use on another occasion.

It ought to be added that to ensure success with this, or any method, it is important to have the pulp boards, ferrotype or glass on which the squeegeeing is done, perfectly clean, and preferably with the slightest trace of grease. I use pulp, and give the boards a thorough washing with soap and water after every three or four lots of prints have been squeegeed on to them. They are then rinsed and allowed to dry, and then are rubbed over with a duster which has been slightly moistened with paraffin oil, and finally polished with a clean duster.—H. W. P.

Printing Postcards with Gradated Borders.

By George Euren. Special to "Photography and Focus."

THERE is no more effective way of printing photographic postcards, in the writer's opinion, than to have the picture in the centre of the card, with a gradated border round it, this border consisting of bands of tint, which, being made by simple exposure, develop up or tone at the same time as the picture, and so are sure to be a perfect match with it.

These borders are usually applied by means of masks, and they can be done in this way most effectively. But the masking of each print three or four times, as is necessary to give it the required border, takes time, and, if we want to make a number of postcards all alike, the trouble entailed becomes almost prohibitive. Under these conditions the method described below has been found to be very satisfactory.

Presuming the negative that is to be printed is on a glass plate and not a film, the border must be printed from a negative made on a celluloid film, and for this purpose nothing will be found more convenient than the films, mounted on card, known as Kodoid plates. To turn one of these into a border negative is not difficult—quite a number can be made in an evening.

The first step is to settle the design of the border. Let us take, as a simple case, a border which shall consist of an even tint, with two narrow bands of a darker tint surrounding the photograph. An unexposed dry plate is fixed out in clean hypo, washed and dried. On the clear gelatine film so provided, the darker bands are ruled with a ruling pen and Indian ink. They may be made quite opaque. It is a convenience to sketch them in on a sheet of white paper, to put

the plate on top of that, and then practically to trace them. It is quite easy to make these lines in this way of any degree of fineness.

When the ink is dry, the plate is put in a printing frame, and then in the dark room the Kodoid plate is laid down upon it, the back inserted, and the exposure made. The actual exposure must be found out by trial. In my own case I find that close to the window of my dark room lamp, the "non-actinic"(!) light coming through it will do what is necessary in sixteen seconds. The Kodoid plate is then taken out of the frame and exposed for ten seconds without any design over it and developed.

The degree of contrast between the lines will be settled by the extent to which the development is carried. It is not advisable to carry it too far, as these borders, as a rule, look better when they are on the dark side. There is scope for a great deal of diversity here, according to the fancy of the photographer. If the lines are wanted lighter than the rest instead of darker, the first Kodoid may be treated as a negative, and a positive made by contact.

The negative of the design having been obtained, the next stage is to fit it to the negative of the picture. For this purpose, the film of the latter is scored with a sharp-pointed knife along the lines which are to form the border of the picture, and the whole of the film lying beyond these lines is scraped away, using the knife almost flat, and giving the glass a final clean with a rag just moistened with water.

Before anything more can be done, one has to settle the nature of the join of mask and picture. It is possible to fit these one to the other without any dividing line, but this wants the utmost accuracy, and is really not worth the trouble it calls for. It is much easier either to separate the print and its border by a plain white or by a plain black line. In either case the mask negative is laid in position on the view, and the outline of the latter marked in pencil on it. If the line is to be a black one, the centre of the film negative is cut away, leaving an opening a trifle larger than the view negative which is to occupy it. If it is to be a white one, the opening is made a trifle smaller, and a black line ruled round it with ruling pen and Indian ink. All that remains to be done is to attach the film border negative to the other by means of binding strips along its edges, and it is ready to make as many prints as may be wanted, without any double printing or registration.



SPINNING IN THE SUN. *Awarded the Silver Plaque in the Advanced Workers' Competition for June.* BY MISS MORDAUNT.



RAMBLES IN TOWN.

St. Albans and its Cathedral.

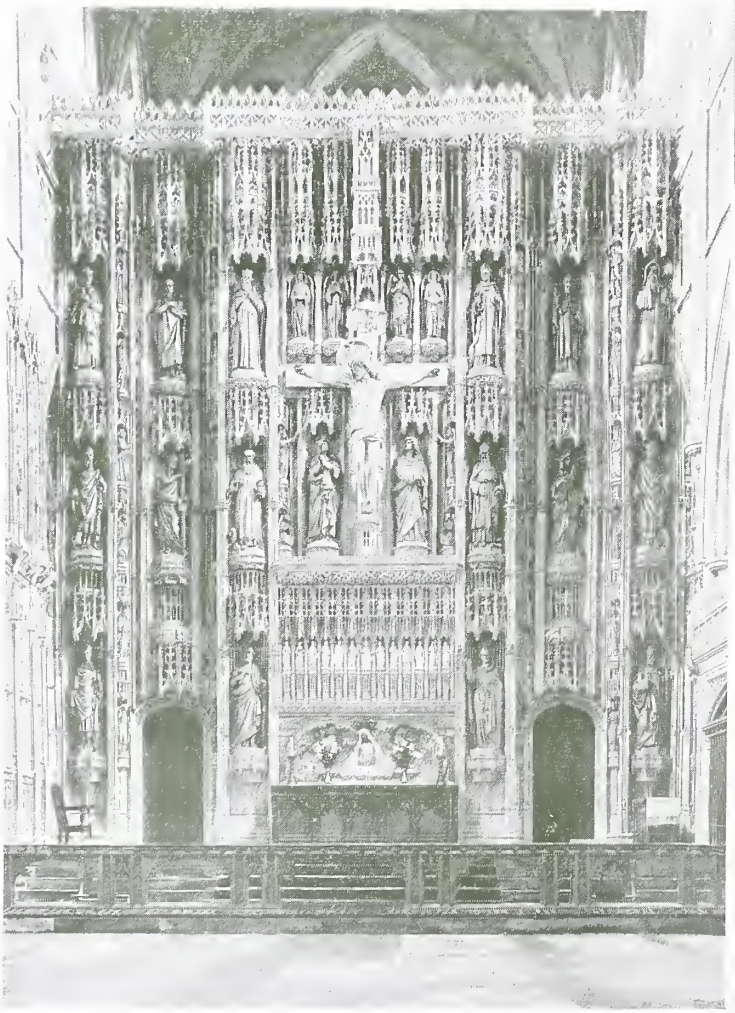
ST. ALBANS is within twenty miles of London, and on Thursdays and Saturdays cheap half-day excursions are run. If the 1.5 p.m. fast train be caught from St. Pancras, the traveller reaches St. Albans at 1.33, which leaves him ample time for the pursuit of photographic work.

St. Albans stands upon the banks of the River Ver, and from this fact it was originally known as Verulamium. Albanus, or Alban as he is generally called, from whose name the city derives its present title, was the first Christian martyr in England. His martyrdom, which is supposed to have been coupled with many miraculous incidents, took place on June 22nd, 303 A.D., on the spot now covered by the north arm of the transept of the Cathedral.

Naturally, the photographer will make his way direct to the Cathedral, and



Corner of the Saints' Chapel, St. Albans.



The High Altar Screen, St. Albans.

wisely, too, for afternoon service will interfere with his work if he loses much time. It is advisable to write to the Dean some days before (stamped envelope enclosed for reply) in order to obtain the necessary permission, which is readily granted. The nave and transepts are free, but on payment of sixpence (for choir, etc.) when one reaches the Cathedral, the whole building is open to the photographer.

The Cathedral itself stands on an elevated site, and is a large and beautiful structure in the form of a cross. To the architect it is one of the most valuable and instructive buildings in the country, since its architecture is of various styles, comprising that of every age from the time of the Normans to that of Edward IV. Recently restored, it possesses much of interest to the photographer, and one would be well advised to expose the first plate upon its very valuable high altar screen. This Wallingford screen will prove a valuable test for the photographer's lens, and a backed plate should be used, whilst the exposure must be ample. The writer at 1 p.m. on a bright day in June gave three minutes' exposure with the lens at f/11 on an Imperial Ortho. S.R. plate.

The tomb of St. Alban is in the Saints' Chapel at the rear of the Presbytery. The best position for the camera is in the south-west corner of the chamber in which the tomb is situated. By so doing one

may obtain, in addition to the tomb itself, an interesting photograph of the "watching loft," whence the tomb was guarded day and night in case any attempt should be made to steal any part of the shrine or precious bones. This "watching loft" was constructed probably during the reign of Richard II., as his badge may be noticed upon



Ruins of Sopwell Nunnery, St. Albans.

it. As a rule, this part of the Cathedral is rather dark, and a rather long exposure necessary. Ten minutes on a S.R. plate at f/11 was found to be sufficient.

Within the Cathedral walls are many other pictures worthy of a plate, and the photographer could spend many hours exposing upon the architectural treasures found there. One plate should be reserved for the West front, and this exterior view, like similar ones in other cathedrals, should be taken rather late in the afternoon. It may wisely be left till afternoon service has commenced, or after a short tour of the town has been made.

The city itself is full of interesting material. Near the west front is an ancient gateway, which makes an excellent picture. There is the old church of St. Michaels, which contains the remains of the famous Lord Bacon and a well-known monument of him. This church is reached by journeying westwards from the Clock Tower along the High Street, down the hill, and over a bridge crossing the Ver. Turning to the left, St. Michaels is reached.

The old tower known as the Clock Tower is of interest, having been originally built in the fifteenth century in order that the curfew bell might be hung in it. Near the Clock Tower is a quaint old street known as French Row.

Crossing a field to the south of the Cathedral, and near the river, one reaches a curious building called the Fighting Cocks, and known as the Old Round House. Like many others in the kingdom, it claims that it is the oldest inhabited residence in England, but whatever truth there may be in this claim, there is little doubt that its foundations date back to the time of the monastery, and may have been the foundation of one of the many gateways which originally gave entrance to the monastic buildings (see page 123).

From the Round House one may travel along the banks of the river, and a photograph of the Cathedral with the water in the foreground may be taken. Ten minutes' walk from the Round House in an opposite direction brings one to the ruins of Sopwell Nunnery. The name is said to be derived from the fact that the two women who founded the Nunnery soaked or sopped their dry bread in water drawn from the Holy Well in the immediate neighbourhood.

HOLIDAY INFORMATION.

Ilfracombe.

Ilfracombe is picturesquely situated on the southern shore of the Bristol Channel, and although a modern watering place contains traces of the old Ilfracombe, which was only a fishing village. There are good sea views from the Tors Walk, Lantern and Capstone Hills. Hillsborough Hill (450ft.) is a favourite rendezvous of photographers. Lantern Hill has a quaint old chapel, now a lighthouse. Cairn Top is a heath-covered hill overlooking the Slade Valley.

Places of Interest.

Pebble Bay (1 mile), a charming cove of sand and rock at the base of the Tors.

Rapparee Cove, to the south of the harbour, with towering foliage.

Chambercombe has romantic woods and a haunted farm. Ten minutes' walk away lies Hele, a picturesque village with quaint thatched cottages. A mile farther on is the pretty Berry Narbor village, with a Norman church and creeper-covered cottages.

Lee (2 miles), a picturesque and well-wooded village, close to the sea.

Morthoe with a lighthouse and rugged cliffs. Woolacombe with fine sands. The coast here is noted for glorious sunset effects.

Dealer (darkroom). H. N. Percival, 5, High Street, Ilfracombe.



A Developer for Stale Platinum Paper.

A note in "Camera Craft" gives the following as a developer for platinum paper, the quantity of the two last-named items being increased in the case of stale paper:

Water	10 ounces.
Potassium oxalate ...	1 ounce.
Potassium phosphate ...	½ ounce.
Potassium bichromate, ten per cent. solution ...	few drops.
Oxalic acid, ten per cent. solution	few drops.

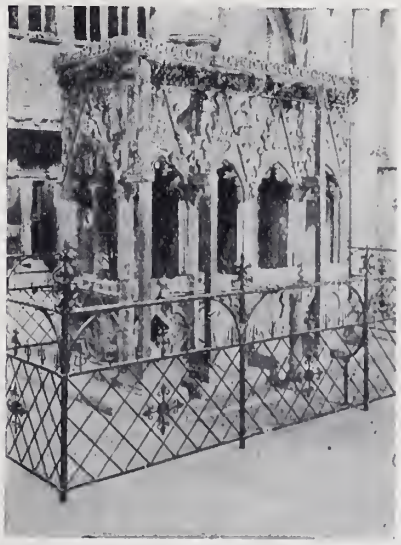
This developer is used hot or cold, raising the temperature bringing out more detail, and lowering it increasing contrast.

Mercuric Iodide Intensifier.

A negative can be intensified by simple immersion in a solution of mercuric iodide in a solution of sodium sulphite. The following is a suitable formula:

Sodium sulphite ...	80 grains
Water	4 ounces

When this is dissolved, four grains of mercuric iodide are added. The negative, which must be thoroughly fixed and washed, is placed in this solution and the dish is rocked. It gradually gains in intensity, and may be taken out when sufficiently dense. If the negative is only temporarily required, this is all that need be done to it, but if it is important that it shall be permanent, it



The Tomb of St. Alban.

should be placed, after the washing, for a few minutes in any ordinary developer used for negative work, and should then be washed and dried.



THIS section of the paper is given up to hints and tips upon different matters of photographic practice sent to us by readers for the benefit of their fellow photographers. We shall be glad if any, who think they have some useful wrinkle that is not generally known, will send us a short note about it. There is no need for diffidence on the ground that the sender is not used to the putting of his ideas into writing; so long as we get the material to go upon, we are always pleased to lick it into shape for publication.

Electric Light for Changing Plates.

I have found, when travelling, that an electric torch, which can be purchased at any of the larger ironmongery stores, is an invaluable accessory for changing plates at night in an hotel bedroom. The bull's-eye lens at one end is unscrewed, and two pieces of the cover of *Photography and Focus* are cut out a shade larger than the bull's-eye. These are placed on the top of the lamp, and the bull's-eye is screwed into position again, giving a red safe light, which will enable plates to be changed at night without the slightest difficulty. Personally, I load my dark slides in total darkness, and only use the lamp when requiring a light to check or correct any mistakes I may have made in the dark. I venture to think that this lamp is of more value than the electric shade mentioned in Mr. Kingham's article on "Holiday Photography" in your issue of the 6th inst., as it is complete in itself, and requires no light from the electric fittings in the room.—LEONARD S. B. HULL.

Storing Negatives.

The simplest method, and one which involves no expense, is to keep the boxes in which the plates are bought, and to pack negatives in them, either with or without paper between. The boxes are numbered or lettered, and a corresponding number or letter pencilled on the margin of each negative. Trace is kept of the negatives by filing a proof print in an album under its appropriate letter or number. It is much easier to find a print in a book than a title in a list, when the negative is wanted in a hurry, and there is no difficulty in picking out the negative from a box of a dozen. If the negatives are likely to be frequently wanted, sheets of paper should certainly be laid between them, to prevent damage. But this precaution is unnecessary if they are only required now and then, provided the whole dozen are gently turned out *en bloc* into the hand, and then picked over carefully, putting them face to face in the box as they are gone through.—S.J.T.

Intensifying Autochromes.

The following may suggest further experiment to those who are so inclined. I developed an Autochrome of "Poppies" by the time method advocated by Messrs. Lumière. Owing, probably, to a mistake in noting the time of first appearance, I gave too much development; at any rate, the result justified intensification. After the final washing for four minutes, I took a solution made by diluting one part of the Agfa intensifier with nine parts of water, and applied it to the plate for about five minutes. The change towards increased strength in the positive was a very slight one; so, after a wash for a couple of minutes, I redeveloped it in ordinary developer, "quinomet," diluted considerably. The effect was almost instantaneous, and after the plate had remained for two minutes and a half in this solution I obtained all I desired. A further wash for a couple of minutes completed the Autochrome. The positive was strong, and its colours deep and brilliant. I did not use any hypo bath.—SYDNEY H. CARR.

Printing on Gaslight Paper.

Over my worktable I have an incandescent gas burner of the inverted type, the distance from the burner to the bench being forty-two inches. For gaslight printing, I have a shade of a tubular shape, fifteen inches long, made of cardboard and an old canister. This fits over the gasfitting in such a way that, while the mantle itself is quite hidden from the eyes, a good light is thrown upon the table beneath. Instead of holding up the frame, or hanging it up, as was recently suggested in *Photography and Focus*, it is simply laid face upwards on the bench—a position which secures a uniform distance from the light, and greatly facilitates any shading or dodging during printing. Four or five prints can be made at once with perfectly uniform lighting, and developing and other operations may be safely carried on anywhere out of the path of the direct beam of light. Exposures vary between one and three minutes, according to the character of the negative. I do not think anyone who has tried this method would care to go back to the other, as it is so much more convenient.—R. SMITH.

A Tilting Table.

A few details supplementary to Mr. Wright's article may be useful. I have taken several dozens of telephotographs of church vaultings with my quarter-plate camera, at its fullest extension, pointing upwards at right angles to the stand, with a similar home-made apparatus, of which the exact details are as follows: Two pieces of well seasoned ½in. mahogany board 6in. × 9in. were joined up by a pair of ordinary brass hinges (costing 3d.) along the 6in. edge. Two struts slotted for half their length and fixed at one end with a screw (cost 4d. the pair) are so fixed that the full length of the slot brings the two boards exactly at right angles to each other. To clamp these, two ⅜in. screws with milled heads and bushes, as shown in Mr. Wright's diagram (cost 3d. each), were employed. One camera screw and bush for attaching the lower board to the tilting table, and one larger sized bush to line the hole through which the camera screw passes in the upper board (total cost, 7d.). I also found advisable a couple of brass washers to give the milled screws a firmer grip on the slotted struts (½d.) The total outlay was therefore 1s. 8½d. The table took about an hour to complete. A hole in the lower panel, opposite the camera screw, large enough to allow its head to pass, enables the whole to close flat with the camera in position. It is also a great help, in telephoto work on the level, to open out both boards and thus have a rigid table for the camera at long extensions. To overcome the shifting of the weight with the camera pointing upwards, I always use the tripod with one leg to the rear, and as I frequently have to focus in this position, I know it presents no practical inconvenience even on a slippery floor.—REV. G. R. HOLT SHAFTO.





Beginners' Competition.

Open to all photographers who have never taken an award.

CLOSING DATE.—Tuesday, August 31st.

PRIZES.—First, a signed copy of "The Complete Photographer," a half-guinea work by Mr. Child Bayley, now in the third edition. Second, a free subscription to "Photography and Focus" for twelve months. One or more certificates of honourable mention will also be awarded.

Rules.

(1) Each competitor can send as many prints as he likes, but each print must bear on the back the coupon, published each week, the name and address of the sender, the title of the picture, and no other writing whatsoever.

(2) No print will be eligible that is larger than 5½in. × 3½in. (postcard size) or 5in. × 4in. Nor are mounted prints eligible.

(3) No handwork other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute, the editor shall have the right to call for the negative from which the entry purports to be a simple direct contact print.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce without payment, any of the prints sent in, winning or otherwise.

(6) All entries must be addressed "Beginners' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date at the very latest.

Advanced Workers' Print Competition.

PRIZES—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates of honourable mention.

Rules.

(1) All photographs must be sent addressed "Advanced Workers' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., postage paid, to reach there not later than the first post on the closing date, and must contain a stamped addressed envelope or label (*not loose stamps*) if they are to be returned.

(2) Each photograph must be mounted, but not framed. Prints in slip-in mounts are not eligible. Each must bear on the back the name and address of the sender and the title of the picture. No letters or other communications must be enclosed with the prints. Every print must bear attached to its mount a coupon for the competition of the month, which will be found in each issue of the paper.

(3) Each photograph must be the work of the competitor as regards selection and arrangement of the subject, exposure and development of the negative, and printing, development or toning, and mounting of the print.

(4) The prints which are accompanied by stamped envelopes or labels will be criticised by post, and the editor shall have the right to reproduce any of the prints, winning or otherwise. The awards will be made a fortnight after the closing date.

(5) Awards may be increased or withheld at the absolute discretion of the judge, and in all cases of dispute the decision of the editor will be final.

(6) There is no restriction as to the eligibility, except as set forth in these rules, and except that the same negative must not be used more than once in the competition. That is to say, that a print from it once submitted, all further prints however varied, are ineligible.

(7) Neither editor nor publishers of *Photography and Focus* shall be held in any way responsible for the safety of prints or for their return to the competitors.

(8) The sending of a print to the competition will be regarded as a declaration to the effect that it is eligible under these rules, and that the competitor agrees thereto.

CLOSING DATE.—Tuesday, August 31st.

Special Subject Competitions. Open to all Readers.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates.

Rules.

(1) The subject of each photograph must be that announced for the particular competition.

(2) Each competitor can send as many prints as he likes, but each print must bear on the back the name and address of the sender, the title of the picture, and no other writing whatsoever. Each print must bear a coupon for the month, which will be found in each issue of the paper.

(3) No print must be mounted. No hand work other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute, the editor shall have the right to call for the original negative from which the entry purports to be a simple direct contact print. Enlargements are not eligible.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce, without payment, any of the prints sent in.

(6) All entries must be addressed "Special Subject Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date.

SUBJECTS AND CLOSING DATES.

A Summer Landscape. Closes August 31st.

A Harvest Scene. Closes September 30th.

Woodland and Water. Closes October 30th.

An Indoor Portrait. Closes November 30th.

TO READERS ABROAD.—In the case of competitors abroad, the rule as to the date of coupons is relaxed sufficiently to allow them to compete.

The Stops of a Lens and their Use.

An attempt to clear up some of the points about stops which are apt to puzzle the beginner.

By H. H. Fowler. Special to "Photography & Focus."



THERE are many photographers who appear to labour under the impression that just as there are "horses for courses," so there are stops for subjects, that certain subjects require certain stops invariably, and that failure will follow if, through ignorance of the proper stop, the photograph is taken with some other. In no other way can I account for the frequency with which I read in the "Answers to Correspondents" that the enquirer is to use the largest stop with which he can get the definition which he requires. If this unfamiliarity with the subject does exist, a few words on the use of stops will "fill a felt want," as the advertisements say.

The best way to understand the use of stops in photography is to begin by enquiring why we need to use them at all. The lens is made to work at f/6 or f/8, or whatever it is, and perhaps a big price has been paid to get a lens which will work at f/6 instead of at f/8.

Why, then, should the photographer have to put a stop in that f/6 lens, which once more reduces its aperture to f/8 or even smaller? The answer to this enquiry is found by ascertaining just what it is that the f/6 lens is supposed to do at f/6.

We will imagine it to be one of the best of modern anastigmats. We put it in the camera, turn this towards some object, say a group in the garden, and focus it as sharply as possible. The lens is sold to cover a half-plate, it bears on its mount the name of some world-famous optician. Yet what is this? We look at the corners of the plate and find that, although the people in the centre of the group are sharp, these corners are quite blurry. The two lower corners of the ground-glass are occupied with the image of some distant trees, and when we focus on these the group gets out of focus altogether. The two upper corners show the grass between us and the group, and when we focus this the group and the distant trees are blurred.

Why, even the old f/11 single lens we used to employ would do better than that. We get it and put it on the camera. The ground-glass does not seem so well lit, but we were not mistaken. It is now possible to focus group and grass and trees and get them all reasonably sharp at once. So that a cheap single lens is actually better than a costly anastigmat? Or have we been victimised by a designing optician?

Is it a Swindle?

Not so. If we stop the anastigmat down to f/11, at which the single lens is working, we shall find that we can get everything sharp just as easily with the anastigmat, and that, when we examine the definition critically, the anastigmat gives us much finer definition than the single lens. Still we did not get the anastigmat solely with a view to finer definition at f/11. We got it mainly because it was said that it would work at f/6. Let us try it once more, before condemning it.

Comparing them on another Subject.

Instead of taking such a subject as a group, where parts of it are very near the camera and parts very remote, let us turn the camera on some subject in which there is nothing much nearer than, say, twenty yards from the camera, and then compare the two lenses. We have now got rid of the necessity for depth of focus to a great extent, the quality in which all lenses at the same aperture and focus are equal, and we can see how the lenses compare in other respects. Now, indeed, there is a difference. The definition all over the plate with the modern lens at f/6 is actually better than it is with the old lens at f/11, so that we have not only got a lens which will work with one-third the exposure of the other, but one which will give us much finer definition at the same time.

So that if the lens will not achieve the impossible, by getting things at widely differing distances sharp at one and the same time, it will at least do a lot of things that the f/11 lens would not. All its other corrections are better. The f/11



An Old English Sheep Dog. *By S. B. Dawson.*

lens could not be used at all at f/6 to give us a sharp picture, but the anastigmat can. There are many subjects without any part of them very near the camera, and these the f/6 lens will render perfectly, at full aperture. Straight lines in the subject will be rendered as straight lines in the photograph with it; whereas with some of the simpler lenses straight lines when they fall near the boundaries of the picture appear curved. Apart from the question of "depth of focus," as it is called, to which we have just referred, it will give us perfect definition with full aperture at the corners of the plate as it does in the centre. This the older lenses, generally speaking, would not do. Moreover, aperture for aperture, its definition is better; that is to say, when both the old and the new lens are stopped down to f/11, or f/16, or f/32, the definition with the former will never quite equal that with the latter, and may even fall a very long way behind it.



A Good Joke.
By Jno. Heywood.

His Hobby. By R. Hogben.
Two Heads are Better than One.
By W. W. Knowles.

We have now gathered, indirectly, that the use of stops in a lens is, first, to increase its power of giving a picture of near and distant objects sharp at the same time, and, secondly, at least with lenses other than the best of modern anastigmats, to obtain better definition simultaneously at the centre and at the edges of the plate.

If the amateur is the user of a fine modern lens, this second use of stops will not concern him, and he can concentrate his attention, as far as the stops are concerned, upon getting sufficient depth of focus, trying one stop in the lens after another, and examining the definition on the ground-glass after each change, until it is seen to be satisfactory. No smaller stop than is required for this should be used.

The Stops are Wanted for the Rising Front and Swing Back.

When the rising front is used, or if the back of the camera is swung, it will be found necessary to stop the lens down; in the latter case it sometimes needs a great deal of stopping down. Even a very high-class lens indeed may need stopping down to get the bottom corners of the picture on the focussing screen quite sharp, as we may then be using the lens as if on a larger plate than that for which it was made. Some lenses allow a lot of rise without needing to be stopped down. With others, it is different. No rule here can be laid down. One must find out for one's self if it is necessary or not.

The advice to use the largest stop which will give the definition that is desired does not mean of necessity the largest stop that will give a picture that is sharp all over. For many subjects in pictorial photography a lens which works at a large aperture is an advantage, because of its defect we might almost say, because of the very little depth of focus which it possesses.

It is a convenience to be able to give greater prominence to one part of the picture—to the principal object, in fact—by focussing upon it, and to give the subordinate parts less assertiveness by rendering them more or less diffused; and this is a result which is obtained by using the lens at a large aperture. Portraits, especially, call for very little depth of focus indeed.

When Want of Depth of Focus is Useful.

All the parts of the subject which we wish to render with good definition may be very much the same distance from the camera; while the background and the accessories generally can hardly be too severely repressed. So that for portraits it will generally happen that the full aperture of the lens is the best to use. But this must not be supposed to mean that we lay down as a rule that "portraits require the biggest stop." As has already been said, it is not possible to classify subjects and the stops they require in this way.

There is another use to which stops may be put, to which no reference has yet been made. Yet it cannot be passed over, as at times it is an important one. The most difficult exposures to time are, as a rule, those that fall on the borderland between the shutter and the hand. A shutter will give a twenty-fifth or a sixteenth or an eighth; but a sixth, a quarter, or a half are often most inaccurately given with the shutter, while they are too short to be given with the cap. If there is no objection on the score of making subordinate details too sharp, a smaller stop may be inserted so as to make the exposure necessary long enough to be given by the cap.

A similar application of the stop is sometimes recommended in the case of hand cameras with shutters which have only one speed. For subjects which require extremely short exposures, such as views which contain nothing but open sea and sky, and for cloud pictures, the shutter exposure with the full aperture of the lens might prove to be too long, and so the amateur is advised to stop the lens down when he is dealing with such subjects. But as a rule all hand camera work requires the full aperture of the lens. It is hard enough to get a fully-exposed snap shot under favourable conditions, without making it still harder by stopping down.

One mistake, often made, calls for a word of caution; it is the mistake of using too small a stop. If this is done there is a loss of "quality" in the image, a want of roundness and relief, which is none the less real that it cannot be more precisely described. Photographs taken with needlessly small stops do not suggest as well as they should do the different distances of different parts. All the picture tends to become flattened up into the same plane. This is particularly noticeable when the extreme distance is rendered with much sharpness and detail.

It is curious to note, what is undoubtedly the fact, that when excessively small stops are used the definition is made worse instead of better. But this only applies to stops much smaller than are likely to be found with lenses; to stops, in fact, which are merely small pinholes.

The Hand Camera on a Wet Day in London.

By "CHELSEA." Special to "Photography and Focus."



LONDON after a shower is full of pictorial material for the photographer with eyes to see and camera to take advantage of the opportunity. Many aspects of the great city, which at other times have some feature which interferes with the composition, will be found on a wet day to be just what is wanted.

The weak point of many of the subjects that are to be found amongst its squares and buildings is very often the blank expanse of asphalt or wood pavement. After a shower all this is altered. The thin film of water reflects its surroundings, but reflects them in a broad and sketchy manner.

The perfectly unruffled mirror-like surface of a quiet pool, in which every twig and leaf, every wisp of marestail floating high above it, is repeated with absolute fidelity, is a lovely scene on which to rest the eye, but the formal repetition of every detail on the surface of the water makes it almost impossible pictorially. The composition is too symmetrical, and we have to remedy this, if in no other way, by throwing something into the water the moment before exposure, to ripple its surface. Not like this are the reflections in the wet streets. The water gathers into pools, or scatters into many disjointed patches, the thin film of wet is broken by every little irregularity in the surface of the roadway, and instead of a literal copy in the reflection, we not only get the details softened and subdued, but the tones of the different parts reflected are altogether altered, by the blending of the image of the pavement itself with the reflected image.

After the shower, then, is of all times that when it will best repay the photographer of London to be out and about with his camera. Nor are the reflections the only advantage. There is a brilliance and sparkle in the atmosphere at such times which is seen at no other. The pictorial worker unfamiliar with the Metropolis may say he does not like and does not want brilliance and sparkle, and would prefer to have his distances softened by haze. But that is rarely wanting, even when the sparkle is predominant.

The opportunities are not so numerous while the rain is actually falling, but there are a good many even then. It is the clear period after the shower has passed over that should be utilised.

Of course, there is the risk of the camera getting wet. A waterproof focussing cloth can often be used to protect most of it, and even if it does get wet here and there it can be wiped dry, and left open in a warm room for a day or two afterwards, and will then be found not to have suffered much. The lens, however, must be protected from wet at the time, as with any moisture upon its surface good definition becomes impossible. Some forms of hand camera have a door which covers the lens except just when it has to be uncovered for exposure, and with these no further trouble will be experienced. Failing this, a tube or hood of cardboard may be fitted to the lens, and will help to keep the negatives bright, besides protecting the glass from rain. It should be painted dead black inside.

On the subject of exposure there is little to be said. Although the lighting may look much feebler than when the weather is fine, it must not be forgotten that the wet pavement is reflecting light upwards, and that if the lights are not strong, at least the shadows are not very deep. A twenty-fifth of a second at f/8 will be found to give fully exposed negatives when fast plates are used and the conditions are fairly favourable.



After a Summer Shower, Trafalgar Square. *By M. C. Sarkies.*

A TYPICAL EXAMPLE OF THE PICTORIAL EFFECTIVENESS OF WET PAVEMENT.

Announcement



We beg to announce to the photographic market of Great Britain and the Colonies over seas that the greatest firm of Photographic Paper Man-ufacturers on the European Continent have opened a branch in London at 26 & 27·FARRINGDON·STREET·E·C under the style of **Gevaert** LIMITED

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A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

THE family group as a subject for the photographer has been so universally jeered at—I must plead guilty to having said some nasty things about it myself—that it turns up comparatively rarely in the entries, even for the Beginners' Competition. Few amateurs seem to hope to win a prize with a mere group. The very idea of entering a group for a general competition seems to argue innocence and inexperience, or else an inconceivable braving of conventionalism, or of unconventionalism; really, I don't know which. Purposing to write this week on groups, I had not a little difficulty in finding illustrations for my theme. Groups formed not two per cent. of the prints which lay on my desk.

I do not complain. I have no wish to be overwhelmed with examples of the group—good, bad, or indifferent. For the reason a group bores the public and the competition judge is because of its limited interest. It is intensely interesting to the persons concerned, and of no interest to all the millions of outsiders who have never met them. A portrait, contrariwise, if effective and in itself beautiful, is interesting to all, though the interest is different from that of the sitter and his or her friends. But a group is taken not solely as a wholesale sort of portrait; it is taken as a record of the fact that certain persons were gathered together in a certain place on a certain day. And this fact is probably of no moment to anybody else but the persons in the gathering.



Where all are Young. *By A. E. Hare*

Nevertheless, the gathering may be worthy of record to its participators. They may legitimately want a camera-memento of it, and a group may be the best kind of memento. I don't blame the group taker therefore for the mere fact that he does take groups. But he is often to be blamed for taking the groups badly and so unintelligently.

"On the Yore" seems to me an example of a commonplace group, but a good one notwithstanding. It is a first-class piece of pure photography, and does exactly what it set out to do. The people in the boat are obviously "being photographed," but the being photographed was after all just as much a feature of their afternoon's adventure as the boat itself. Years hence this print will call up pleasant memories to these picnickers. What more justification does it require? None, that I can see. But that the photographer should enter this print for a prize competition (unless the subject of the competition was specifically "Groups") is quite unaccountable to me. One wants something more than good technique in a competition picture. One wants—well, Subject, with a capital S.

I speak, be it noted, for myself. I have nothing to do with the judging of these or any other competitions, and the judge may hold quite different views. I can merely say that, as an onlooker, it appears to me that only something quite unique and stunning in the group line could by any possibility have any chance, in these days, of catching the attention of a judge who



On the Yore. *By Jno. Monger.*

Edwards
ETO

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EDWARDS' ISO SNAP SHOT PLATES ARE IDEAL FOR ALL SHUTTER WORK AND THE STUDIO ON ACCOUNT OF THE RICH QUALITY NEGATIVES THEY PRODUCE. FOR OUT DOOR WORK THE DISTANCE COMES OUT BRIGHT AND CLEAR EVEN IF PARTIALLY OBSCURED BY A BLUE HAZE; FOLIAGE COMES OUT IN DETAIL (NOT AS A DARK MASS) WITHOUT SPECIAL TREATMENT. MANIPULATION SAME AS ORDINARY PLATES.

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TRADE XL MARK

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NEEDS NO DARK ROOM.

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EDWARDS' **"EMPIRE"** PLATE.

FOR EXTREME RAPIDITY.

attached any value to the originality of the work which passed through his hands.

That, then, is why I think that this print, though of admirable technique, is of limited interest, and, though entirely suitable for the purpose for which it was taken, is not suitable for sending forth into a world wider than the immediate circle of friends of the taker and his sitters.

"Where All are Young" is a group on much the same lines, though less good because more posed. The mere fact of their being in a boat grouped the first set of groupees together more or less stiffly and formally, but these all young folks playing on the sand are not thus automatically grouped by circumstances. They have been arranged in a bunch by the photographer, and in so doing he has lost the chance of making a really and truly characteristic picture. The only person who looks the part—or rather who is trying to look the part—is papa in the background, wielding a spade with, however, not a little self-consciousness. Had the children been scattered about, digging and making the sand pies which figure in front, and had their elders been looking on, or taking part in this performance, the group would have been a truer and a pleasanter record of the holiday incident than it is.

Of course, as I said of the previous group, the photographing itself was an incident in the holiday, but it does not seem to me to be so natural and appropriate an incident where children are concerned as it was for the boating party. The children would surely have preferred to go on compounding their sand pies without interruption, and would certainly have made a more childlike *ensemble* by so doing.

"Marbles, or Girls Imitating Boys," is a more complete failure. It suffers from the bane of all groups—self-consciousness. An ordinary group, posed in a row facing the camera, is bad enough in its self-consciousness, but a group which, like this, is intended to represent the unposed, and which is still self-conscious, is far worse. The boating group are self-conscious, but we do not complain of this, because they have frankly stopped to be photographed.

These "Girls Imitating Boys" are not supposed to look as though they were being photographed at all, but all the three of them, and also the man who is stealing a glance at the camera, are "giving the show away."



Reflections. *By E. Drowley.*

Better far would it have been to range them woodenly against that ugly wall and take them in the "we're-being-photographed" attitude than to take such wooden models shamming at playing a game like this.

Naturalism is also evidently the aim of the taker of "Simple Life." There is a certain smug artificiality about the simplicity of this picture—one suspects the genuineness of that tea—nevertheless, the thing is on the whole a success. The trio, whatever else their faults, are determined not to be overtly aware of the camera. The result is a good memento, but a bad competition picture, its interest being purely local.

"Reflections" is the only group I have found which might claim to have more than a local and personal appeal, and perhaps it wasn't taken as a group at all—the photographer may only have been attracted by the composition and setting of the scene and may not have been acquainted with the girls he snapped.

Nevertheless, this photograph would have been, to my mind, quite a good memento group, had it been intended as such—as good, every bit, as the boating scene we first considered, and, in a sense, a bit better. Enlarged a little, all the figures would be recognisable—and recognisability is, of course, an essential of the group which is to please its subjects. In addition to recognisability, this picture has a certain charm not due to composition—the composition might have been better—but to the high key in which it is printed, and whose soft greys and whites will, I fear, be lost in reproduction.

The maker of this picture may object to my classing it as a mere group, and perhaps he is justified in objecting. But I repeat that even classing it as a group, and as nothing more, it seems to me superior to the other groups I have commented on; and I believe, too, that it would please its subjects just as much as, say, "On the Yore" pleases its subjects, and would be a better "memento" of an incident into the bargain.

Finally, I draw attention to "Christmas Waits," page 110—a faultless group, thanks to the sublime naturalness of the groupees. I shall be accused of frivolity, I am afraid, in introducing a picture of sparrows into an article dealing with human beings, but I must take the risk.

In looking at this attractive group of sparrows I could not help thinking how excellent it would be if human groups could be as true to life, as unconscious of the camera as this. And why should they not be? Why should not groups be snapped unbeknownst? Is not the best group—except this—



The Simple Life. *By C. E. Starley.*



Marbles. *By C. Edwin Edwards.*

Have you had a sample of the new grades of "Ensyna"

"Ensyna" has advantages that sound almost too good to be true. Its tones range from cold purple to warm brown, according to the length of time the paper is exposed to the light. The invariable rule for governing the colour of the print is **short exposure gives purple, long exposure gives brown.**

The latitude of "Ensyna" entirely obviates failure. Only by complete disregard of the instructions could a single piece of the paper be wasted. If the first print from a negative is too cold —too purple in colour—then give longer exposure next time.

The whole process of making a permanent "Ensyna" print, ready to mount, is completed within 5 minutes of the time the paper is taken out of the packet.

Prints by Daylight or Gaslight.

The paper is merely exposed to light behind a negative, rinsed in water, soaked in the developer for one minute, rinsed, fixed for thirty seconds in hypo, and it is done. Even the process of washing after the fixation has been reduced to the almost unbelievable period of two minutes instead of one hour.

Three New Grades have just been introduced:

VIGOROUS GLOSSY.
VIGOROUS MATT.
CARBON SURFACE.

SPECIAL SAMPLE PACKETS

(inclusive of developer without extra charge). Everyone, whether they have tried "Ensyna" before or not, should purchase from their Dealer one of the new sample packets, complete with developer, which can be obtained from Photographic Dealers everywhere at 6d. for the quarter-plate size, or 1/- in half-plate. These samples can be sent direct by post at 7d. and 1/1 respectively. They will not be issued after 31st August, except to foreign and colonial readers.

Contents of the Special Quarter or Half-plate Sample Packet of the New Vigorous and Carbon grades of "Ensyna."

4 *Sheets Vigorous "Ensyna" Glossy.*
2 *Sheets Vigorous "Ensyna" Matt.*
4 *Sheets Carbon "Ensyna" (the new surface).*
1 *Pair of Ensynoids to make 5 ozs. of solution (sufficient to develop the above paper).*

Colonial readers should apply for the Samples before 31st October.

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which we have looked at an example of this very snapping: the group called "Reflections"? And would not every one of our other groups be the better if the groupees had not known of the camera's presence? I think so.

This being the case, I conclude by throwing out the hint that stalking with the hand camera may be as necessary in the production of the perfect group of human beings as it no doubt was in the taking of these sparrows.



Photographing the Invisible.

A Note on Light which the Plate can Perceive though the Eye cannot.

THAT which is invisible to the eye is not necessarily incapable of detection by the camera. There are rays of light which are incapable of rendering objects visible to the human eye, and therefore may be referred to as "dark light" without perpetrating a bull. The term "light" is applied because this particular form of energy differs from ordinary light merely by a slight difference in the rapidity of the vibrations of the ether producing it. This dark light, though quite invisible, affects a photographic plate strongly, and objects have been photographed with it in a perfectly dark room.

Certain of these dark rays are emitted by all flames, such as those of gas and oil. Moreover, chemists have discovered that by subjecting hydrogen gas to a number of cleansing processes, it is possible to obtain it in such a state of purity that its flame is quite invisible, and, curious as it may appear, must be felt for rather than looked for to locate it, even in an absolutely dark chamber. Yet this invisible flame of highly purified hydrogen may be photographed quite easily with a sensitive plate, owing to the rays of light which it emits being what we have called dark light. The pale blue flame of hydrogen as commonly prepared, it may be remarked, is due to small traces of impurities from the materials employed in its preparation.

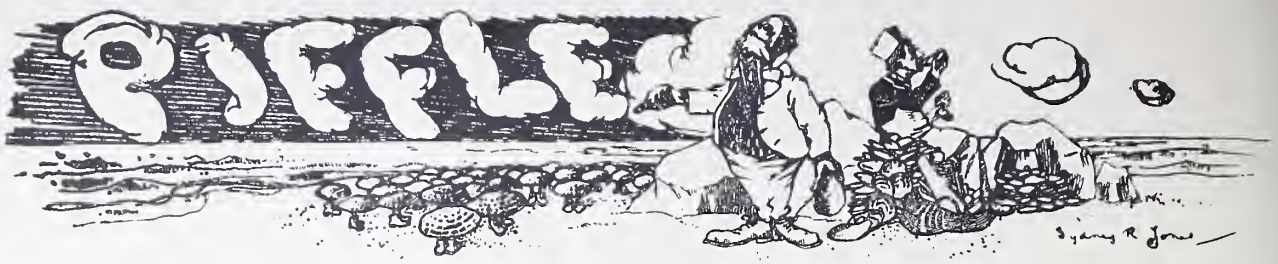


Ye Old Round House, St. Albans (see page 115).

There is another aspect of the subject which is equally interesting. Very faint markings upon an object, which are almost imperceptible to the eye, often come out quite sharply in a photograph. A very curious illustration occurred quite accidentally some time ago when a photographer, having taken the portrait of a client seated before a background which had recently been repainted, was surprised to discover the ghostly outline of a human figure plainly discernible upon the plate as if looking over the sitter's shoulder. Investigation proved that the supposed ghost was merely the reproduction of some very faint workings upon the background, which, though efficiently disguised from observation by the new design painted over the old one, were still visible to the camera's eye and faithfully recorded.

Finally, it may be pointed out that certain substances exhibiting the property of phosphorescence possess the power of altering the chemical or photographically active rays of light at the same time as they reflect them. Sulphate of quinine may serve as an example, and the phenomenon may be illustrated very attractively by either of following experiments. One may make a sketch upon a sheet of cartridge paper having a rough dull surface and using a solution of this substance instead of ink. The sketch will be quite invisible to the eye on drying. If, however, the paper be photographed either alone or as a background while taking the portrait of a friend, whatever has been drawn or written upon the paper will be reproduced almost as if ordinary ink had been employed. The sulphate of quinine, though failing to alter those rays of light which affect the eye, and therefore remaining invisible upon the white paper, will alter the actinic rays and the resulting contrast becomes apparent on developing the plate. A simpler variation of the experiment is to fill a wineglass with the solution and another with ordinary black ink and place both in a suitable position with a sheet of white paper behind. Upon development it will be found that the colourless fluid in the first glass is as dark in the photograph as the ink.


NEGATIVE TAKEN ON A
WELLINGTON
'XTRA SPEEDY
PLATE . . . .
HALF-TONE FROM A PRINT ON
WELLINGTON CARBON
BROMIDE.



"The time has come, the Walrus said, to talk of many things."

FAR be it from me to speak with anything approaching disrespect of what is known as survey and record work. There are many photographers up and down the country engaged in this work, and quite a fairish number of them are as nearly in their right minds as makes no difference. Some of them are enthusiasts who furiously lay it down as an axiom that no man can render posterity a greater service than to lay up for the said posterity a vast collection of disgracefully uninteresting photographs of appallingly unimportant subjects. They have an idea that future generations will be consumed with a burning desire to know what a certain back alley looked like on the 5th of November, 1901, lens 6⅞in. focus, stop f/6.29, exposure 2h. 3m. 2⅕s., photographed by J. Muggins. They feel confident that a daily crowd of our distant descendants will gather round a photograph of a new gas lamp put up by the District Council of Slopton at the N.W. end of Mud Lane, A.D. 1907.

* * *

I do not dispute all this. I even hope it may be true; for, goaded by a relentless survey secretary, I have made some record photographs myself which will easily hold their own with the worst examples yet produced, and when the thanks of posterity are being ladled out I trust I may come in for my humble share. And much good may it do me.

* * *

Having thus expressed my approval of survey work in a general way, and having confessed my partial complicity therein, I feel bound to remark that here and there we find a record enthusiast so carried away with his zeal as to come perilously near having "bats in his belfry." He loses his head. Which is the best thing he can do with it. It is really a tough job to avoid a rude grin when we are told that the ideal time to make a record photograph of Canterbury Cathedral is when there is scaffolding up, the reason being that "it would afford the ages to come a priceless record of the fact that Canterbury Cathedral was under repair at such and such a date." If it were not unparliamentary I should be tempted to say, "Rats!" As it is, I will content myself with asserting that the ages to come won't care a whatyoumaycallit about the matter at all. If they did they would have the sense to know that the cathedral, like all others, is under daily repair. At the same time, I can conceive it just possible that some solitary chap of a later generation might while away an hour by looking at some record photographs of the 7th Edwardian era, while waiting for a new pair of legs to replace those he snapped off when he fell out of his aeroplane. Even he would probably take no earthly interest in a scaffolding on one of the towers of Canterbury Cathedral, but would much prefer a photograph of the place showing its appearance after the Germans had finished with it in the great war of ———. I can't fill in the latest date, because I am not aware how many years ahead it has now been postponed. Then, again, according to some cheerful prophets, future generations will take no interest whatever in photographs, whether record or otherwise, for the simple reason that they will have reverted to an earlier type, and be too busily occupied in nosing about the ground to grub up a few edible roots for their sustenance. Moreover, they will be blind.

* * *

The same gentleman who points out the priceless value of photographs of scaffolding to future ages also states that every amateur should carry a foot rule in his pocket. I not only agree, but suggest the addition of a jack plane, a corkscrew, and a short ladder. One never knows when any of these may come in handy. Let us hear the special object of the carriage of the foot rule: "On every occasion where architectural details or other objects of interest present themselves to the omnivorous camera of the seeker after records, a few of these foot rules should be unobtrusively planted in their neighbourhood to give scale to the detail."

* * *

The subject is a serious one, and my self-control is phenomenal, otherwise I feel sure I should have to laugh. It is not at first clear how it is possible, if we only carry one foot rule in our pocket, for us to plant several of them (unobtrusively or otherwise) around our subject. But it must be explained that the gentleman points out that if we do not carry a foot rule we can make one by marking the width of a halfpenny repeatedly along a strip of cardboard. By inference, if we can make one we can make many. We can continue till we exhaust our strips of cardboard or spend the halfpenny. Imagine an object of interest like a comely country lassie stuck all over with cardboard rules to give scale to her details. There would be some difficulty, too, in planting a border of rules round a weather-cock on a church steeple before taking a telephotograph of it. Neither do I envy the record photographer who is trimming up architectural details with his unobtrusive pasteboards and is caught in the act by a certain verger of my acquaintance. He would give more than his rule-making halfpenny to be a thousand miles away.

* * *

What a life we photographers would lead if we only took all the advice hurled at us. Think of the contents of our pockets, for one thing; think of what we should take, and how we should take it, if we followed all the instructions bestowed upon us. I have just been reading some advice to those who wished to "snap-shot the fleet." I trust that as long as I maintain my present sober habit of life I shall never have the slightest desire to snap-shot a fleet; but we never know what we may come to, and so I have prepared myself for the worst by reading the article. The best distance to make the exposure is between fifty and five hundred feet away. This gives a reasonable margin. It allows for the difficulty in judging distances accurately on the water, and gives some chance to the photographer who covers a good deal of the course looking over the side and bestowing his blessing and breakfast on possible sharks. The camera must be pressed tightly against the chest during exposure, and breathing must be temporarily suspended. It is best to stop the heart also. It is a positive disadvantage to be ill over the finder. As there are crowds of people all round, it will be necessary to hold the camera at arms' length upside down over the head to get an exposure. The camera cannot be pressed against the chest in this position, so the chest must be blown well up and pressed against the camera. If the boat on which the photographer is unhappily located should be moving, he must wait for one of its steadiest moments. I like that "if."

THE WALRUS.

SUBSCRIPTIONS.

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Hints on Development in a Tank.

Weak developers cause fog : the need for turning the plates upside down : the care of the tank : filling a rack with plates in a poor light.

THE constant succession of new apparatus for stand or, as it is now more often termed, tank development, testifies to the strong hold which this method of work is taking upon the amateur photographer.

When the Kodak Company first put its developing machine upon the market there were plenty of people to decry it, and to contend that it deprived the photographer of "control" over his results. They refused to admit what was the fact, namely, that it only deprived him of a control which he fancied he possessed — the supposed power of remedying in development errors which had been made in exposure, while it left him the only true control he had ever had—the power to get more or less contrast by altering the extent of development—an alteration which could be effected either by varying the strength of the solution or the time during which it was allowed to act.

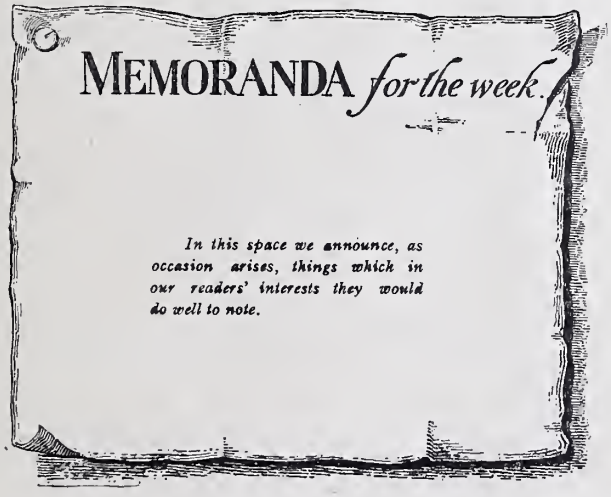
When, however, it was found that the machine had not only a sound theoretical basis, but also that it was possible with it to do, and to do better and more conveniently, all that could be done by developing the films in a dish one at a time; it was realised that the scientists were right, and that development should be a definite measured operation, not one conducted by guesswork and rule of thumb; and that it was much more important to know the strength and thetemperature of the developer than the superficial appearance of the plate as it could be observed in the feeble light of the dark room. When once this came to be generally recognised the growth of tank development became very rapid, and the appliances for carrying it out were multiplied.

There were certain misunderstandings of the process at first, which caused trouble to some workers, and it may perhaps be as well if we recall what some of those were. One of these was the belief that extremely dilute developers were advantageous, or at least were as good as those which were more concentrated. This is not the case. The action of a very weak developer for a long time is not the same as that of a stronger one for a much shorter time.

The actual strength of the developer lessens at a greater rate than the dilution. If we double the bulk by the addition of water, we find at once that the time taken to get the same density as before is more than doubled. This, too, is regardless of the fact that when a great degree of dilution is reached we may have so little of the actual developer present that there is not enough of it to develop the plate properly at all.

But although the strength of the developer to bring out the image is weakened by dilution, its power of fogging the plate does not seem to be diminished. This appears to depend not only on the strength of the solution, but on the time during which it is allowed to act. If this time is too long, the plate may be badly fogged and stained. Speaking generally, from a quarter to threequarters of an hour is the best duration of development, anything much longer being prone to give negatives which are not as clean and free from fog as one would wish.

Another point in connection with very dilute developers is their tendency to oxidise. The chief cause of oxidation is the air which is dissolved in the water used for dilution. This is easily seen by noting how much longer a dilute developer keeps its colour if, instead of plain tap water, it is diluted with water



which has been boiled briskly to dispel the air dissolved in it, and allowed to go cool without agitation. The more water that we add to a developer the more dissolved air is given to it, and the more rapid, therefore, is the oxidation process, which means weakening of the developer, and in some cases, at least, staining of the plate. To prevent this, when a great deal of water is added, it is advisable to use, instead of water, a one or two per cent. solution of sulphite. But it is better still not to use such very dilute developers.

The Need for Reversing the Plates.

The necessity for rocking the plate during development is another matter which must not be overlooked. If development is carried out in a dish, with the plate horizontal, we know that if the dish is not rocked sufficiently during the operation, there is a great risk of the negative being spoiled by mottling. In a tank in which the plates are held horizontally, the rocking is equally necessary. In tanks in which the plates are vertical, there is little or no risk of mottling, it is true, even if the tank is left undisturbed during the whole time of development; but, on the other hand, there is a risk of getting a curious defect in the form of a line of dense deposit bordering the image where a fully exposed part comes against a less exposed portion. The sky line is very commonly affected in this way.

The only method which is known to be a complete preventive of this is to turn the whole tank and its contents upside down once or twice during development, and to leave it so; so that for part of the total time one edge of the plates is uppermost, and for part the other. It is to allow of this that so many of the tanks are now made either reversible in an outer container, or else completely watertight.

The Care of a Metal Tank.

A metal developing tank, if properly taken care of, should last almost indefinitely; but if neglected it will very soon become useless, however well made originally. Immediately after use it should be thoroughly washed, both inside and out, so that nothing but plain water, at any rate, is left on any part of it. It should then be placed where it can drain and dry, each part being put separately, so that no little pool of water shall accumulate anywhere within it. Only when it is quite dry all over should it be put together and put away.

A little powdery deposit sometimes forms on the inside of a metal tank. It does not seem to do any harm; but is, perhaps, better removed. A tooth-brush forms as good an instrument for cleaning the rack and the corners of the tank as any. There is not the same objection to the use of hypo in a metal tank that there is in a porcelain dish, as the hypo is very easily washed off the metal, whereas it is extremely difficult to cleanse a dish from it. Acid hypo baths should in no case be used with metal.

Filling Racks in a Weak Light

One more hint may be added for the benefit of those who fill the plates into racks in the dark room by the light of a ruby lamp. It is not easy to see to put the plates into the rack unless this is held very near the lamp, and then there is a risk of fogging the plates. But if the photographer sits down facing the lamp, and holds the rack in the line between his eyes and the lamp, with the grooves of the rack in that line, he will find that it is the simplest thing in the world to see to slip the plates into the grooves, even if the lamp is some distance away. R. C. B.



Flowers and the Camera.

Two of our articles and several of our illustrations this week have flowers for their subject. As Mr. Phillips writes, in the note on page 140, some of the flower pictures attempted by photographers are very hackneyed in character. We see this over and over again in our competitions, in which it is nothing uncommon to get three or four prints by different workers of the same kind of flowers arranged in almost precisely the same manner. The technique of the prints is very fair—sometimes, in fact, very good—but the grouping of the flowers, upon which much of the pictorial quality of the result will depend, is painfully formal and stiff.

Another frequent cause of trouble is the background. When this is light and is near the flowers they often cast their shadows upon it in such a way as to destroy altogether the effectiveness of the group as a picture. In most cases, one does not want to feel that there is a background close up to the flowers at all. It suggests by its presence that they have been put up against it to be photographed, and that is a thing to be avoided if possible. It also seems to rob the flowers of much of their rotundity and relief. They are no longer spreading free, but are gathered up in front of something; and this may be suggested even if the background is not actually in contact with them at all. On a dark background the shadows may not show at all, even if any fall on it, and so this effect may be avoided; but if a light background is to be used it should be far enough away to avoid the shadows reaching it. A fairly dark background is what Mr. Seymour generally uses for his own magnificent flower studies, it will be remembered; and in this matter those who would achieve success in that direction cannot do better than follow his example.

Fixing Before Toning.

While we do not care to advocate the combined toning and fixing bath, where permanence is of importance, there is not the same objection to the use of a combined bath as a toning bath pure and simple, the print being first fixed in a plain hypo bath, from which it may be transferred direct to a combined toning and fixing bath of the usual description without any intermediate washing. Prof. Namias, who has given much attention to this subject, recommends for the purpose, not a plain hypo bath, but one which has had added to it boric acid to the amount of one-sixth the weight of the hypo. After fixing, the toning action proceeds

regularly but slowly. The combined bath used in this way will be found to keep in working order much longer than when it is used for fixing as well, as in the latter case it soon contains a great deal of silver which it has dissolved out of the prints. The method is not one that is likely ever to become very popular, but it at least has one advantage to the inexperienced worker —it is very easy to judge the tone of the prints and to decide precisely how far to carry the toning, as they undergo very little change in colour in the drying.

Cleaning Photographic Dishes.

The great advantage of the white porcelain dish is that one can see at a glance if it is clean or not, and so it removes one unsuspected source of failure. But it is not always possible to get it clean with plain water, and the use of strong acids or alkalies for the purpose is not to be recommended, as they tend to destroy its protective coating, and so hasten the time when its permanent appearance shows that its cleanliness cannot be relied upon. In a recent issue of "Camera Craft," the editor recommended common salt as a cleanser. A little heap of the salt is put in one corner of the dish, enough water to moisten it is added, and it is then used as a scouring compound. He observes that it will remove most deposits on the dish with very little effort, and it may then be rinsed out and made quite clean. In our own practice we have found Sapolio one of the best cleansers for photographic dishes, although it is certainly open to the objection that it injures the glaze. As a cleansing liquid the acid permanganate, or C solution, used in the Autochrome process will be found very hard to beat.

More Amateurs than ever.

According to all accounts the sale of cameras and of apparatus generally has been one of the poorest on record. Dealers all over the country seem to be agreed that they never knew the photographic trade so dull. Yet it is reassuring to know that this is not due to any decrease in the popularity of photography, but merely to the scarcity of money compelling amateurs to economise in the practice of their hobby. That this is the explanation is shown by the fact that at the holiday resorts there never was a time when the camera was more in evidence. At the recent visit of the Fleet the ships received photographic broadsides from every excursion steamer which passed them; and equally in out-of-the-way beauty spots every other visitor at least seems to carry a camera. Our view was confirmed also by a big London dealer the other day, who told us that, while his actual takings had only increased very slightly, the number of customers on his books had doubled—suggesting, at least, that amateurs were more plentiful than ever. If this is so, any improvement in trade generally should be followed by a big revival in the photographic apparatus and material business. Perhaps next year may see this, when the trade exhibition announced for the Horticultural Hall will serve to give the industry a much desired stimulus.

REMARKS (WITH ASIDES) TO A RUBY LAMP.

Hail! hail to thee, my ruddy friend,
Thy warm smile lights my darkened way;
The cellar steps I'll now descend
(I've stepped right in the fixing tray!)

Now. by thine aid, thou ruby gem,
I'll prove my efforts of to-day
(Hope I've not made a mess of them);
I'll turn you higher, by the way.

Come, show me pictures folks will view,
With keen delight, when I am gone;
See, o'er the plate I pour M.Q.,
This negative should prove A1.

Ah, here it comes. I now recall
The maid, the dog. the rustic gate,
The flower-strewn path—(Oh, hang it all!
The dog is halfway off the plate!)

Ah, no, I will not fix it out;
I see, beneath thy feeble gleam,
The maid's two-faced, without a doubt.
(Maids are not always what they seem.)

We'll try the next, my rosy friend,
I've better hopes of number two;
I wish your light you'd try to mend,
You're rather dull, 'twixt me and you.

I cannot see, to be quite frank,
One detail of that pretty spot—
The pool, the swans, the reedy bank,
The shady trees. Oh, flicker not!

Prithee, don't smoke; fast fails thy light;
Fail not, my lamp! Good friend, shine on!
I'll swear I filled you up all right!
(Deuce take the lamp; the light has gone.)

A Forecast of an Exceptionally Interesting Issue.

COPYING pen and ink drawings, engravings, etchings, etc., will be one of the subjects dealt with in our issue for next week. The series of articles on lenses will be continued by an account of the Aldis Anastigmat with the Trio and Duo attachments, and a further "Critical Causerie" will also be given. Mr. Fergus O'Neill will contribute an article on "Variations of the Bromide Process," and Mr. Ernest Green will show with examples that the distortion due to tipping the camera is easily remedied. A feature of the issue will be an illustrated article on

A COUNTRY TOWN BY NIGHT,

by Mr. H. Wild, showing what can be done after dark in the streets of such a town as Tunbridge Wells. Mr. Wild's wonderful night photography is now well known, and the latest article from his pen serves to show others how they may attempt similar subjects with success.

QUERIES AND REPLIES

REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

LAGOS (Glasgow).—The article on page 118 this week answers your enquiry.

E.G.A. (Erdington).—We will make an offer for any articles you can supply that may suit us.

NOVICE (Barnsley).—The print has all the appearance of one from a negative which required a good deal more development.

ASSAM (Birmingham).—There is nothing of the sort obtainable. You will have to use a film negative of the printing if you want it to show.

W. BROOKS (Peterborough).—A solution of an ounce of alum and a quarter of an ounce of citric acid in a pint of water might do what is wanted.

JOHN HARPER AND CO. (Willenhall).—We do not know of anyone who has a good photograph of a cobra for sale, and can only suggest an advertisement.

E. F. GUITON (Jersey).—As you do not state what your enquiry was, we are unable to judge in what way the reply falls short of what it should be.

E. WOODGER EMS (Bournemouth).—Sensitised white opaque celluloid is not on the market, and we do not suppose you would be able to get a small quantity made.

R.W.A. (Brierfield).—You cannot do better than use what you have already used, giving it a tooth to take the pencil, by rubbing it over with a little pumice powder

H. A. ROGERS (Morecambe).—You do not give any idea of the character of subject, so that we cannot tell you the shortest exposure. With a fast lens landscapes have been secured in one or two seconds

CURIOUS (Haverstock Hill).—The process was described on page 78 of our issue for July 27th. Cruwys Richards book on the process, price 2s. 6d., or post free from our publishers 2s. 9d., deals with it more fully.

REFLECTING (York).—It is a "practical" camera, but unless you are prepared to pay for a first-rate reflex camera, it is better to go in for some type of apparatus in which accuracy of workmanship is not so all-important.

CONDENSER (Liverpool).—A 5in. condenser will not illuminate the whole of a quarter-plate. The reason that the image is not sharp all over at once is not that the light is in the wrong position, but simply that the lens has not got a flat field.

CONSTANT READER (Kimberley).—It is impossible to say what particular lens took the picture; but any decidedly wide angle lens would do it. A 5in. lens that will cover a half-plate would give it, such as, to name only one make, the Goerz-Dagor.

PENNY (Arundel).—An Aldis Series II. half-plate lens would be very suitable; but we doubt if you will be able to get it at the price you mention; and, in any case, as you say you "don't know anything about lenses," it would be very risky to buy one second-hand.

W.D.W. (Acton).—Two thicknesses of the ruby paper should prove an ample protection. It is best to enclose it between two sheets of glass to protect it from splashes and accidental injury. It is a mistake to work with too little light; that is responsible for many of the amateur's difficulties.

T.D.S. (Poona).—It is very doubtful whether you could get it over to you in good condition, and it would certainly be best to sensitise it as required. But the process is one which would undoubtedly present great difficulties in the Indian climate. Formalin or alum could not be used in any case, as they would at once destroy its solubility.

MISS SPERLING (Evian-les-Baines).—All competitions close on the date given, whether competitors are at home or abroad. The rule that is relaxed is the rule as to the coupons being those of the *current* month. Thus a reader in India might use a July coupon in sending in to an August competition; but with readers only a day or two's post from London there is no such relaxation. Coupons of former months are not valid.

F. GREEN (Manchester).—Please note our rules as to address.

B. DAVIDSON (London, S.E.) — The magnifier required is one of 60 inches focus.

CONCINOR (S. Norwood).—If the two lenses are alike there should be no distortion.

ALEPPO (Birkenhead).—You will find a full answer to your enquiry on page 112 this week.

T. YOUNG (East Dulwich).—The factor is 15 or thereabouts; according to the character of negative desired.

W. WILKINSON (Manchester).—The exposure and development required is precisely the same as is needed in the case of a good lantern slide.

R. SMITH (Portsmouth).—If you will send us a letter, duly stamped, we will address it and send it on to the competitor who took the picture.

TONER (East Molesey).—The best plan will be to throw it away and buy fresh; it is hardly worth while to risk spoiling an enlargement to save a penny or so.

F.H.R. (Harringay Park).—We regret that we can add nothing to the answer already given. We quite realise your difficulty, but there is no such royal road to success.

LUTHER (Brighton).—The cause of the mottling is not keeping the developer moving gently over the surface of the plate all the time of development by rocking the dish.

LEGINNER (Darlington).—You must learn to estimate the distance; and would do well to read carefully "The Hand Camera," by Wastell and Bayley, price 1s. nett, or post free 1s. 2d.

ORTHO (Kingston-on-Thames).—If you stipulated that it was only the United Kingdom copyright which you sold, you are at liberty to sell the copyright for any other country, if you can secure a purchaser.

E.J.B. (Walthamstow).—We should describe the print as one made from a negative that was much too thin and weak, and one which was greatly over-toned. It may be that the paper is wrong, but we very much doubt it.

HANS STICH (Oporto).—We doubt if you will be able to get precisely what you want; but if you put yourself in the hands of Messrs. J. A. Sinclair and Co., Haymarket, London, S.W., telling them what you require, you can hardly go wrong.

W. SCOTT (Peebles).—The developer you mention is not applicable, and would simply give a fogged spoilt result. You will do well to stick to the instructions precisely; certainly there is nothing to be gained, but quite the reverse, by making the alterations which you propose.

MOREEN (Woodford).—The increased exposure would be four hundred times. The rule is quite a simple one. Square the distance from the source of light in inches in each case, and divide the greater by the less. The dividend is the number of times the exposure has to be increased.

HARRY POWER (S. Shields).—The reflex is not a very convenient type of camera for wave photography, and it would have to be very carefully protected from spray, unless you are prepared to have a costly instrument ruined very quickly. Some of the best work of this kind has been done with a box camera and finder. The trouble with the reflex is that the lens is uncovered all the time and so is very liable to get wet, which would ruin the definition. This would not occur with a shutter in front of the lens, which only uncovered it at the moment of exposure.

STUPID (Reigate).—The suggestion is not at all a stupid one, in fact it is quite the reverse. It is only possible to get near things into focus at the same time as distant ones by using either a shorter focus lens or a smaller stop. The limit with the former is soon reached; while the latter is limited in the case of hand cameras by the necessity of keeping the lens rapid enough for instantaneous work. The smallest stop practical is about f/11. If the camera is to be used on a stand with time exposures, so that stopping down does not matter, it is quite possible to make a camera which will not require focussing; but in practice it is found preferable to employ a focussing screen and a fairly large stop.

A. E. TENNANTS (Manor Park.)—We have sent your letter on.

PHOSPHATE (Barnt Green).—We can see no advantage whatever in using it.

J. HINE (Belfast).—The usual price is from 25s upwards, according to circumstances.

STUCK (Colwyn Bay).—One part of the concentrated solution to thirty parts of water is the strength usually employed.

KEY WEST (Liverpool).—The article in the current issue fully replies to your questions. You appear to have overlooked rule 3 above.

CHIN (Sheffield).—The plate must be well washed first. Your failure is clearly due to the presence in its film of traces (or more than traces) of hypo.

. S.E.R. (Whyteleafe).—There is no best in that limited sense. Any of those you name will do excellently, and it would be a very difficult matter to choose between them.

PAT (Manorhamilton).—"The Gum Bichromate Process," by J. Cruwys Richards, price 2s. 6d. nett, or post free from our publishers 2s. 9d., is what we should recommend.

COPYRIGHT (East Ham).—You have a perfect legal right to do what you propose; but hardly a moral right to do so. In fact, we feel sure that, on consideration, you will see that you are hardly treating the photographer fairly.

N. P. SAMPAT (Karanja).—The bath will not keep in a mixed form, and there is no preservative that will make it keep. But there is no reason why the ingredients should not be kept in the dry state and dissolved as required; but they must not be mixed together dry, but dissolved separately and the solutions mixed.

H. O'NEILL (Dublin).—We cannot recognise the lens from your description, but the maker has long been out of business, and all the patterns he made are obsolete. This will make it practically valueless for selling; but it may be serviceable enough on the camera if you do not want it to work at any very large aperture.

SPECTACLE (Bournemouth).—As the lens is not achromatic, the sharpest focus for photography will not be the same as the sharpest to the eye. If you focus as well as you can and then rack the lens and back nearer together to an extent equal to one-fiftieth of their total separation (an eighth of an inch in your case will be about right) you will get a sharper picture than if you leave it as focussed.

REV. F. PARTRIDGE (Egloskerry).—The most common cause of blisters in the double transfer carbon process is insufficient soaking of the final support. If necessary, it may be given a preliminary soaking in warm water; but it is better to rely upon cold, giving it three or four hours. If the blisters manifest themselves on the temporary support, they are probably caused by faulty squeegeeing.

ARTS (Bristol).—As we have pointed out before, we do not attempt to reconcile different makers' plate speed numbers. The H. and D. numbers are only comparable when they have all been obtained by the same test carried out in precisely the same method, and this is not usually the case, each maker having his own method of doing it. If you want a reliable guide the Watkins Speed Card is the best we know.

A. G. WOONWARN (Upper Clapton).—It will be best to measure the focus in some other way. An easy method is to arrange four pins on a table at an open window. Three of the pins should be in a line parallel with the window, and each four inches apart. The fourth pin should be at the extremity of a line starting from the central pin, at right angles to the line in which are the other three, and exactly twenty-four inches long. Using this last as a sight, two distant objects are noted which are in a line with this back pin and the two outside pins respectively. The camera is then set up on the table, parallel with the row of three pins, the pins can be removed as they are done with, and the two distant objects are sharply focussed on the screen and their distance apart is measured. The true focus of the lens will be three times that distance.



THE WALTHAMSTOW PHOTOGRAPHIC Society holds a members' exhibition, from October 2nd to October 9th, in the large hall of the new library buildings, Walthamstow.

"THE WATKINS METERS and Methods" form the subject of a little booklet just issued by the Watkins Meter Co., of Hereford. It will be sent post free on application.

THE RAJAR CAMERA offered monthly for the best print on Rajar papers has been won this month by Dr. H. Shearwood Roberts, 13, Lord Street West, Southport, the paper being supplied by Cave's Photographic Stores, Southport.

THE ROYAL PHOTOGRAPHIC SOCIETY. The address of the society is now 35, Russell Square, London, W.C. Although the house cannot be completely in order for some weeks, the dark rooms will be so far arranged that they will be usable by the 16th inst.

KODAK SELF-TONING COLLODION Postcards. We have already reviewed the Kodak Self-toning Collodion Paper, and note that this excellent product is now supplied in postcard form also. The cards yield very agreeable cold tones by printing and immersing direct, without washing, in a hypo fixing bath. Ten minutes in such a bath will yield a fine purple brown, while warmer tones can be got by giving the cards a washing in three changes of water before fixing. If the prints are first immersed in a bath of sixty grains of common salt to the pint of water, and are then fixed, the colour obtained is a purple. These cards are made in two grades—glossy or matt. Being collodion, they may be dried by heat without injury if they are wanted in a hurry.

FLYING. The one topic of the moment is man's conquest of the air. The conquest is far from being complete, but at least some of the outposts have been captured and held, and interest in flying and flying machines is universal. A little book, "Flying, the why and wherefore," which has just been issued by the publishers of *Photography and Focus*, makes its appearance, therefore, at a most opportune moment. As a description of the typical machines which are at present in use, and an account of their principles and of the problems which they have to solve, this book leaves nothing to be desired either in lucidity or completeness. It puts its non-technical reader in a position to understand the construction and use of the flying machine, and to appreciate the feats of which the daily papers are now so full. The "Aero," a penny weekly paper, published by Messrs. Iliffe, also deals with this topic. "Flying" is published at 1s. nett, or post free 1s. 2d. from Iliffe and Sons Ltd., 20, Tudor Street, London, E.C.

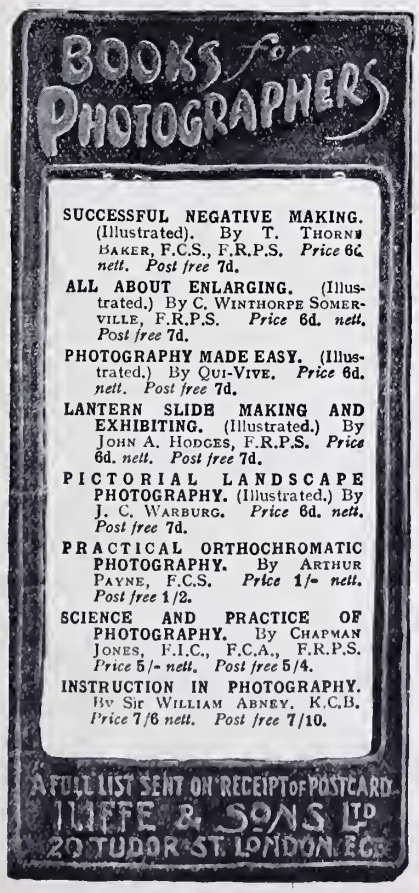
DEATH OF AN EXETER PHOTOGRAPHER. Mr. Owen Angell, a well-known professional photographer in Exeter in the past, died on the 4th inst., aged 88.

THE DONCASTER CAMERA CLUB holds its exhibition from November 16-19. Entry forms can be obtained from the honorary secretary, Mr. F. A. Jordan, 21, Baxter Gate, Doncaster.

ENSIGN FILM COMPETITION. A three guinea camera is given every month for the best negative on Ensign film. The August competition was won by Mintern Hiam, of 63, Beresford Road, Canonbury, N.

A SOCIETY HISTORY. The oldest photographic society in South Africa is the one at Port Elizabeth, and the chairman, Mr. G. E. Sargent, has recently compiled and printed a very interesting little history of its doings from its foundation on July 27th, 1891, to the present day.

PAGET PHOSPHATE PAPER. The Paget Prize Plate Co., in some additional notes, state that the best and simplest light for developing is that of an ordinary candle. It is sufficiently yellow to do no harm even when the dish is held quite close to it. If, owing to under-exposure, forced development, or the use of too strong a light in developing, the whites of a print are slightly fogged, they may be cleaned by immersing the print in the reducing solution diluted with from three to six times its bulk of water, and applied only just as long as is necessary, and then quickly washed off.



THE SALON CATALOGUE this year is to have illustrations.

HALLEY'S COMET, which will soon be sought by astronomers, will, it is expected, first be detected photographically.

A ONE EXPOSURE THREE-COLOUR camera has been invented by Sir William Abney, and was described by him at the British Association.

KILLED IN THE ALPS. Signor Patti, a photographer, fell from the southern slope of the Pizzo Badile in the Bergaglia Valley, Switzerland, and was killed.

DRESDEN EXHIBITION. All correspondence in connection with the return of exhibits will be undertaken by Mr. C. Wille, Deutsche Bank, George Yard, Lombard Street, London, E.C.

PERFECT PRINTS. This is the title of an excellent little booklet, which has just been issued by the Leto Photo-Materials Co., Ltd., of 1, Crutched Friars, London, E.C., and which will be sent free to any amateurs on application. Dealers also can obtain a supply for distribution. It is from the pen of Mr. W. L. F. Wastell, and deals with the production of prints on Seltona paper.

THE GEVAERT LIST has just been issued, and can be obtained on application to Messrs. Gevaert, Ltd., of 26 and 27, Farringdon Street, London, E.C. It not only gives full particulars and prices of the Gevaert productions, which include P.O.P. (both gelatino and collodio chloride), gaslight and bromide paper and cards, but also contains a sketch of the rapid growth of what is now one of the greatest photographic industries on the Continent.

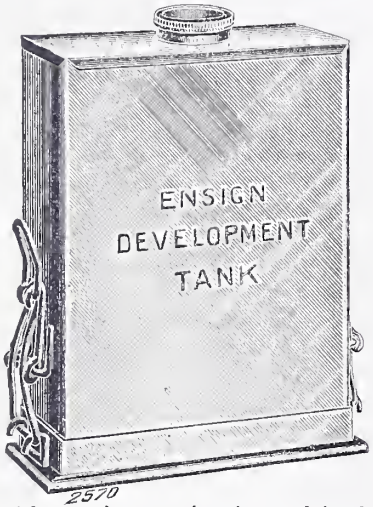
DRAWINGS FROM PHOTOGRAPHS. The "Globe" describes a curious method for making these. A thin negative is put into the lantern and its image projected on a sheet of drawing paper. The dead white portions of the negative image on the paper are then filled up with colour until they are as dark as the darkest parts of the image. The half-tones have a lesser density of colour applied to them until they also are as dark as the darkest, and so on until the whole of the paper presents a perfectly even and regular surface all one shade. On taking this out into daylight it should be a positive, the perfection of which would depend on the care with which the evening up had been carried out.

PHOTOGRAPHS OF VESSELS. The tendency in the photography of yachts and other vessels, says the "Westminster Gazette," is generally to give too short an exposure. The photographer turns up his exposure tables under sea and sky, and takes the figure there set down. The result is that the boats too often come out as silhouettes, which may be very effective in certain circumstances, but are scarcely what the photographer wants. To get details in the shadows round and about the boats an exposure several times more than that for sea and sky is necessary.

REVIEWS

The Ensign Development Tank.

THE rapid growth of tank development of late years has led to the production of many ingenious appliances for the purpose, so that now the photographer who wishes to employ time development, and avoid altogether the troubles of trying to judge development by looking through an almost opaque plate at a feeble red light, finds all sorts of clever devices at his disposal. The latest of these is the Ensign development tank, which is shown, as it appears when in use, in the illustration herewith.



The tank, which is constructed of brass and is nickel-plated, consists of two parts—an inner removable rack, and a water-tight container. The rack is taken out of the container to be loaded with plates, which is an operation that can be done quite easily in perfect darkness by the sense of touch alone. The rack with the plates is then inserted in the container, and the lid of this, which has an ingenious and effective fastening, is then put on and secured. In this condition the tank may be taken out into daylight without any risk of fogging the plates. At the opposite end will be seen an opening covered by a screw cap, and through this opening the developer is introduced. When the screw cap is replaced the whole tank is absolutely water-tight, and may be put any way up, without fear of the solution leaking out.

This reversibility, as those who have done much tank development know, is a very important feature. If a plate is left to develop undisturbed in a vertical position in a tank, it will sometimes happen that where a very much exposed part abuts on a very little exposed part, the image is bordered by streamers of deposit, which quite ruin the negative. It does not happen every time, but there is always the risk of it; and the only way in which this risk can be avoided is by turning the tank upside down from time to time. The Ensign tank being water-tight allows this to be done without any trouble.

A question often put to us is whether plates can be fixed as well as developed in the same tank. Here is what the makers of the Ensign tank state on the subject. The fixing may be done in the tank, but "it is preferable to take the rack, full of plates, out in subdued light, and immerse it in a separate fixing tank, rather than fix and develop in the same tank. Separate fixing saves washing the developing tank so thoroughly." Our own practice is always to fix in the tank in which the developing was done; the fact that this course makes a thorough washing of the tank an absolute necessity is by no means an unmixed evil.

The makers of the Ensign tank are, of course, Messrs. Houghtons, Ltd., of 88 and 89, High Holborn, London, W.C. It is supplied in four sizes, taking respectively quarter, 5 × 4, postcard, and half-plates, at 7s. 6d., 10s. 6d., 10s. 6d., and 12s. 6d. Each tank holds six plates. Extra racks and plain tanks for fixing are also supplied separately, and "time and tank developing powders," making developer at a penny a pint, are also provided. The new Ensign developer, Victol, reviewed elsewhere this week, is also very suitable.

An Improved Form of Butcher's Carbine Camera, No. 2.

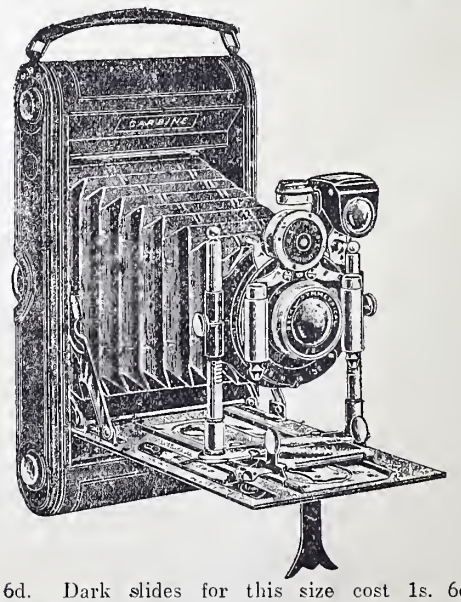
AMONGST other new cameras which have been submitted to us by Messrs. W. Butcher and Sons, of Camera House, Farringdon Avenue, London, E.C., is the No. 2 Carbine, which under an old name has undergone such extensive alteration as to justify its inclusion here as a new camera.

The No. 2 Carbine, which is made in quarter-plate and postcard sizes, is seen in the illustration herewith, which is sufficiently in detail to show the altered method of attaching the baseboard to the camera, by which the old form of hinge is done away with, a pair of struts taking its place. Consequently, on releasing the catch a spring causes the baseboard to open outwards and to rise on the camera back at the same time. the practical result being an increase in the length of the baseboard, allowing increased extension. This arrangement is an ingenious one, and provides for a longer baseboard than could be got in any other way without increasing the size of the camera itself. The baseboard, moreover, is held with perfect rigidity when open, as effectively, in fact, as when it was directly hinged to the camera body.

A new pattern of infinity catch is fitted, and a new focussing scale, which latter enables a single scale to be used both for roll films and for plates, in place of the two separate scales in the older patterns.

The back of the Carbine camera is now made flush with the rest. Improvements have also been effected in the front, by which it never leaves the folding baseboard, but is found partially extended when the camera is opened. This not only makes focussing easier and quicker, but is much less liable to accidental derangement.

The camera is made in four sizes, taking plates 4½ by 2¼, quarter-plate, 5 by 4, and postcard size. Each camera can be used just as it is for roll films, or by means of dark slides for plates. The quarter-plate No. 2 Carbine, with Beck R.R. lens, sells at £2 5s., or with Aldis Anastigmat



£3 7s. 6d. Dark slides for this size cost 1s. 6d. each, single pattern, or 4s. each double, and a carrying case is also provided, price 5s. 6d.

New Varieties of Ensyna Paper.

FEW of the recent departures in photographic practice have aroused as much attention as silver phosphate paper introduced towards the end of last year by Messrs. Houghtons, Ltd. The remarkable flexibility of the paper, allowing the exposure to be almost anything, within reason or even beyond it, and the fine range of tones which could be obtained simply by development, caused it to excite a degree of interest which has by no means died down.

The inventors of Ensyna have not allowed the process to rest just as it was when they put it on the market, but have been labouring ever since to improve it in those directions wherein any improvement was possible, and to adapt it to the varied requirements of the photographer. The result is the production of a new variety known as "Vigorous Ensyna," intended, as its name denotes, to give vigorous rich prints from thin negatives. Such a characteristic is always sure to secure popularity with amateur photographers, since the tendency of a great many is to the production of negatives which err on the side of thinness rather than on that of excessive density. As with gaslight papers, the vigorous variety requires a longer exposure than the ordinary Ensyna, being, in fact, particularly suited to daylight use; but, in other respects, the manipulation is the same, the same developer being used for the one as for the other.

A noticeable feature of the Vigorous Ensyna is that it develops more rapidly than the ordinary grade. A good many photographers we do not doubt were misled, when Ensyna was first introduced, by the wide difference between the way in which it developed and any other development to which they were accustomed. The image was comparitively a long time in making its appearance at all, but when once it began to do so, it soon acquired full vigour, the whole operation taking from three to four minutes. With Vigorous Ensyna, although the development appears to go through the same stages, they are accomplished much more quickly; in fact, the makers state that "if the development takes longer than a minute and a half the print is underexposed." No doubt this fact alone will commend it to many.

The ordinary or soft grade Ensyna will still be supplied, the Vigorous Ensyna being intended to supplement and not to supplant it.

Another new variety of Ensyna which has just made its appearance is the Carbon Surface. This is a grade intermediate between glossy and matt, giving prints, as its name implies, with the lustre which is characteristic of a carbon print.

There can be no doubt that, to use a current colloquialism, Ensyna paper has "come to stay," and its staying powers will be enhanced by these new varieties here recorded, which serve to adapt it still more to the widely varying tastes and needs of its users.

A Broken Negative.

Having broken a negative recently, and having a P.O.P. print made from it before it got broken, I tried the following method, with success: I placed a clean piece of glass in the printing frame, then put the P.O.P. print in it, with its back to the glass, as one would an ordinary negative, and then placed a piece of P.O.P. face to face with the print, and put the frame out in daylight. The light penetrated through the paper and printed out on it a paper negative. After toning, fixing, washing, and drying this, I placed it in the printing frame with its back to the light and took a print from it. I thereby got a print equal to the original, except for the grain of the paper, which shows very slightly.—F. HUNT.

The Beginners' Competition for July. Awards.

WHILE the other competitions which we hold fluctuate greatly in numbers between one month and another, the beginners, like the poor, we seem to have always with us. The numbers are not only far in excess of those sent in to any other competition, but are also surprisingly steady, winter and summer, and although a great many of the entries suggest that those who sent them did not read the "Critical Causerie," some, at least, are of very considerable merit.

AWARDS.

FIRST PRIZE (a signed copy of "The Complete Photographer").—"In the Meadow," J. W. Thomson, 49, Albert Street, Edinburgh.

SECOND PRIZE (a free subscription to *Photography and Focus* for a year).—"The Only Way," Miss May Manley, 1, Deakin's Road, Hay Mills, Birmingham.

CERTIFICATES.—"Thoughts," Miss M. E. Hill, Advent House, Breachwood, Welwyn, Herts; "A Woodland Path," Geo. P. Henzell, 29, Northumberland Gardens, Newcastle-on-Tyne; "Daybreak," A. J. Baxter, Townsend Estate, Goodwood, near Cape Town, S. Africa.

The Advanced Workers' Competition for July. Awards.

THE entries this month are about up to the usual number, but the quality of much of the work sent in is much above what is usual. There are quite twenty pictures which might have taken awards had they been sent in a month or two ago when the competition amongst the best prints was less keen. Probably these first-rate works represent the beginning of the results of the holiday season. We trust that the standard now reached will be maintained in the future.

The criticism of those prints which were accompanied by stamped wrappers or envelopes is now in hand, and we hope all will be sent off by the middle of next week.

AWARDS.

SILVER PLAQUE.—"Sanctuary, Too Late," Allen Lonsdale, 6, Walter's Road, Swansea.

BRONZE PLAQUE.—"Grey Street, Newcastle-on-Tyne," Easten Lee, 85, Osborne Avenue, Newcastle.

BRONZE MEDAL.—"Margaretta," Miss Jago, 765, Ecclesall Road, Sheffield.

CERTIFICATES.—"Radiant Morn," W. J. Hart, 25, Main Street, Shettleston, N.B.; "St. Hilda's, Whitby," W. Whitlam, 13, Mayfield Street, Spring Bank, Hull.

The "Sunset" Special Subject Competition. Awards.

THE entries in this competition were more numerous than usual, but the average of merit was much about the same. A good many of the competitors seemed to give the term "sunset" a very wide meaning, as quite a number of the entries showed the sun to be still high in the heavens. There were others which may have been taken at the time of sunset, but which certainly in no way suggested it. With so striking a subject we are rather surprised to find how little many of our readers have been able to make of it.

AWARDS.

SILVER PLAQUE.—"Evening," Basil F. Hallett, 104, Hazelville Road, London, N.

BRONZE PLAQUE.—"The Aftermath, Hong Kong," Dr. G. P. Jordan, 9, Aldwych Mansions, Aldwych, W.C.

BRONZE MEDAL.—"The glow of sunset burning low," W. E. Ellis, 36, Beech Street, Accrington, Lancs.

CERTIFICATES.—"Good Night," S. E. Ward, Hatfield, Grimsby Road, New Cleethorpes; and "Sunset," W. Cunningham, 30, Hawkshaw Street, Horwich, Lancs.



Matt Varnish and the Negative.

By I. Y. Smart. Special to "Photography and Focus."

The use of matt varnish is one of the easiest methods for controlling a print; and in this article Mr. Smart describes with sufficient detail how to apply the varnish to the back of the negative, and how to work upon it afterwards. The tinted matt varnish to which he refers is kept in stock by some photographic dealers.

THE advocates of "pure photography" may say what they will, the fact remains that when we want to get pictures of "exhibition quality," if such a term may be permitted, a perfectly straight print from a perfectly straight negative very rarely gives us what we require. It is not that there is anything inherently wrong in "straight" work, but rather that the limitations of the processes we use are such that it is easier to make certain changes during printing than to carry out those changes on the subject itself, which would then allow the photography to be perfectly "straight."

The modern methods of gum printing and "oil" allow the photographer who uses them to introduce the most extensive alterations into his prints; so much so, that it becomes a very difficult if not an impossible matter to produce two prints alike. Moreover, these processes both give the user more control than many photographers care for—more, in fact, than they can very well manage. They would prefer a process which would allow them to make certain modifications in their prints, to hold back some parts and to bring out others, but still which, if left alone, would give them a plain and faithful reproduction of what was in their negative.

Such a method is provided by work on the back of the negative, which not only gives a great degree of control, but when once carried out allows any number of identical prints to be made, and allows us to use almost any printing process we may select.

The first stage in working on the back of the negative is to cover it with something which will allow it to take the pencil or stump with which that work is done. "Papier minerale," a kind of very fine textureless tissue paper, is often used for this purpose, but the preference of the writer is for matt varnish, which can be obtained from any photographic dealer. This is a varnish which dries with a fine ground-glass surface, on which it is quite easy to work with a stump or soft lead pencil.

A simple application of matt varnish makes no difference in the print which the negative will yield: all it does is to make printing a little slower. But if the varnish is tinted by means of a dye, and after being applied evenly all over is scratched away with a knife from the parts which we wish to print more darkly, a great difference can be obtained. The varnish must only be very faintly tinted or the effect will be overdone. A few grains of aurine may be dissolved in an ounce or two of methylated spirit and kept as a stock solution. A drop or two of this will be found ample to stain a couple of ounces of the varnish. It is a good plan to have at least three bottles of matt varnish—one plain, one slightly and one more deeply dyed—and to be governed in the use of them by the extent of the required alteration.

The beginner's chief trouble will be to apply the varnish. There is a certain knack in it, but this is soon acquired. The negative should be held in the left hand on the outspread finger tips, one corner being just lightly caught against the thumb.

A large pool of the varnish is then poured into the centre of the plate, which is then tilted so as to cause the varnish to flow towards the thumb. It must not be allowed to touch the thumb or it will promptly flow down the photographer's sleeve, but as soon as it is near it the inclination is changed, so that it flows to the next corner on the left, then to the next, and then finally to the corner nearest the right hand which is holding the bottle. As soon as it gets to that corner it may be tilted quickly so that as much as possible of the varnish may flow off into the bottle, and then being held by the two hands—by the "thumb corner" and the one diagonally opposite—it is quickly raised to a vertical position and rocked from side to side. In a few moments it will cease to drip, and when this takes place it may be put on one side to dry.

The chief causes of failure in this varnishing operation—which is actually quite a simple one and not at all difficult—are, first and foremost, attempting to do it with too little varnish on the plate. The pool should be at least half the width of the plate in diameter; and secondly, tilting the plate too much, so that the varnish tends to flow over the sides and get on the front.

If the photographer has any doubt about his ability to get the plate quickly and evenly covered without any overflow, he should provide it with a rim all round except at the corner at which the varnish is to be poured off, which rim can easily be constructed of lantern-slide binding strips, sticking them down on the glass side, so that half the width of the strip overlaps the edge of the negative, and then when dry folding this overlap back until it stands at right angles to the glass, and making joins at the corners with short pieces of strip. But there must not be the smallest hole at the corner or the varnish will rush through. This edge is by no means a necessity, and the advice of the writer is not to have recourse to it, but rather to learn how to varnish a negative without, by coating one or two plain glasses or spoilt negatives for practice.

If any of the varnish does get on to the film side, it should be wiped off, before putting the plate up to dry, with a clean dry duster, following this up, if necessary, with a wipe with some cotton-wool moistened with ether or with petrol. Very often the whole of the varnish can be removed with the duster alone, but some varnishes differ from others in this respect.

No attempt should be made to do any work on the varnished negative until the varnish has hardened. It will dry, to



SPANISH IRIS.
BY GEORGE GILBERT.

Awarded a Certificate in the "Growing Flower" Competition.

all appearances, in a few minutes, but is best left for some hours, as at first the coating is tender and easily damaged. It is a great help, when work on it is being undertaken, to fix the plate in some kind of retouching desk—a makeshift one will do, provided it holds the negative at a convenient angle, and allows the greater part of the light to come through it and not fall on it.

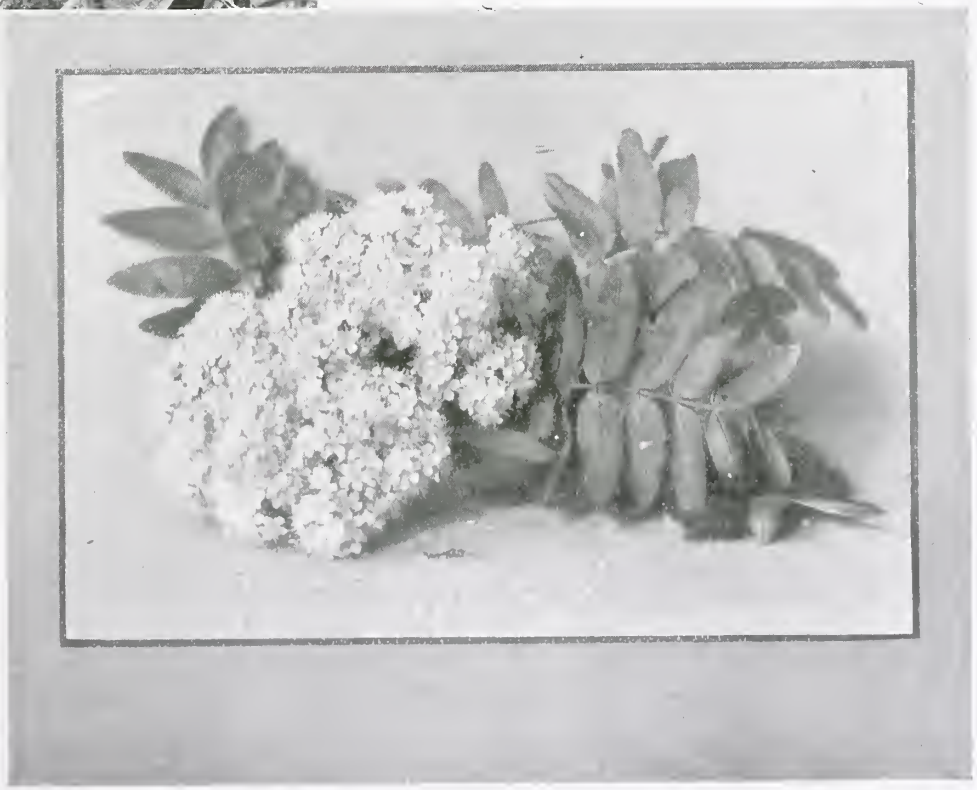
When a negative has been evenly coated with slightly tinted varnish, the work on it may take two forms. Those parts which are required to print darker than the rest may have the varnish above them scraped away. While where the varnish is left we may put lead upon it with a pencil or stump, and so get particular parts to print lighter.

The most convenient tool for removing the varnish is one of the pen-nib print trimmers which are supplied by the big dealers. The trimmer consists of a kind of penholder in which is inserted a nib with two sharp edges meeting in a point. The outline of the part to be removed may be traced with the point, and then a broader line cut with one of the edges, using the blade nearly flat. It is more convenient to make just this broad line and any of the fine work on the retouching desk, clearing away the patches of varnish inside it afterwards, when the negative may be laid flat on a table for the purpose. It is best to remove all the varnish that has to be removed by scraping, and not to use a solvent for the purpose, as this introduces the risk of a drop of the solvent getting on some part where the varnish is to remain. This would necessitate removing all the varnish and starting *de novo*.

In removing the varnish the lines of the negative must be followed as accurately as possible—that goes without saying. To do this the eyes should be kept just above the part on which the work is being done, as if we look at it slantingly the varnish will be taken off too far or not far enough. It is sometimes necessary to give the line a rough edge, like a saw, to prevent it from showing in the print, but if the printing is done in diffused light this should not be necessary.

The next stage is the application of blacklead to those parts which we wish shall print lighter. For this purpose the writer prefers a BBB pencil, supplemented when occasion arises with some blacklead and a stump, or the finger tip when the work is very broad. The first thing the beginner will note is that what looks like a great deal of blacklead on the surface does not turn out to be very much on looking through the negative. If a great deal of opacity is wanted, some powder colour may be put on with the stump; but these changes on a big scale are seldom much of a success, and if blacklead will not do what is wanted we may be pretty sure that we are wanting to do too much.

After the work has been done, it is well to bind a plain glass over it by means of lantern slide binders.



MOUNTAIN ASH. *Awarded a Certificate in the Advanced Workers' Competition.* BY JOHN PERRIN.

CAMERA RAMBLES.

ALNWICK, WARKWORTH, AND BAMBOROUGH.

ALNWICK is a little town of about 7,000 inhabitants, picturesquely situated on the bank of the River Aln, in the very heart of Northumberland, and in the centre of a particularly fine district for photographic work, abounding as it does in fine hills and wooded valleys, ruined castles, peel towers, old bastiles or fortified houses, and bordered by a bold and rugged coast.

Alnwick was formerly a walled town, but only the old gateway called the Hotspur Tower now remains. This is seen on entering the town from the railway station. The parish church, St. Michael's, is a fine old building, with a curious turret or cell on the south-east corner of the roof, entered by a winding stair from the chancel. Its purpose is unknown, and has caused a great deal of discussion.



Lindisfarne, Holy Island.



The magnificent feudal pile, Alnwick Castle, the seat of the Duke of Northumberland, is finely situated on the south bank of the River Aln. Unfortunately, photographers are not allowed inside, but there are a number of views of the exterior which can be obtained, and are well worth attention. A fine one can be got either from the Lion Bridge or from the Pastures. This is best taken either in the early morning or in the evening. The old barbican, the entrance to the castle, is also worth photographing.



The Keep, Warkworth Castle.

Minstrel Gallery, Dunstanburgh Castle.

Within easy distance of Alnwick is Warkworth, where there is a fine ruined castle. Warkworth Castle, on the banks of the Coquet, is always open, and will provide material for several pictures. The town of Warkworth, and the river, with the old Hermitage, are also worth attention.



Peel Tower, Shilbottle Vicarage.

Almouth, as its name indicates, is at the mouth of the river, and is a pretty watering-place. The sea coast for about three miles to the north is flat and uninteresting, but further on it rises in bold rocks honeycombed by the sea, and amongst the high basalt cliffs some fine photographs may be obtained, especially during a north-easterly gale. About seven miles to the north is Dunstanburgh Castle, standing out grim and bleak against the grey northern sea, with the Farne Islands, the scene of the heroic exploit of Grace Darling, visible in the distance; while about eighteen miles north from Alnwick is Bamborough Castle,

famous in legend and story. The churchyard at Bamborough contains a memorial to Grace Darling. A few miles from here is Chillingham, the seat of the Earl of Tankerville.

To the west of Alnwick lies the private park of the Duke of Northumberland, with the Aln winding through it. Permission to enter can be obtained by applying at the Castle office. Hulne



Alnwick Castle and Town. (Telephotograph.)

Abbey, lying in the park about two miles away, is well situated on the banks of the Aln, and both the abbey and the surrounding neighbourhood will appeal strongly to the photographer.

The Cheviot Hills lie about fourteen miles to the north-west of Alnwick. By Wooler station is the best way to get to them. There is some very fine scenery, and almost every hill is crowned with an ancient British camp, but the whole district is so crowded with interesting historical remains and beautiful scenery that it is not possible to do more than name a few of the principal places.

There is good hotel accommodation in Alnwick, and a full stock of films, plates, and papers is kept by J. L. Newbigin and Son, who have a dark room, free to amateurs, for changing plates. Messrs. Newbigin are always glad to give any information to visitors about the district.

HOLIDAY INFORMATION.

Yeovil.

Yeovil, on the southern side of Somerset, and close to the Devon border, is in the centre of picturesque and beautiful country. It also provides many opportunities for architectural work, Somerset Perpendicular churches (towers especially) including some of the finest in the country. In the town are the parish church (the "Lantern of the West"); the Castle Inn, a twelfth century building, once a chantry chapel; the George Hotel, a timbered fifteenth century house; and Nine Springs, a glen of much beauty.

Places of Interest.

Brympton House and Church (2¾ miles) form a perfect and complete group of mediæval architecture. The church contains a remarkable tomb.

The famous Montacute House (1589), fine church, quaint houses in the village, and the gateway (in good preservation) of an ancient Clunic monastery, is four miles from Yeovil.

Hamdon Hill (5½ miles), a Romano-British encampment, has well-preserved earthworks, ancient quarries, and the interesting church at Stoke-under-Ham contains Saxon carving and a magnificent Norman chancel arch.

East Coker (3 miles), the birthplace of the navigator Dampier, with Coker Court, an ancient manor house, and Naish Priory.

Ilchester (5 miles) was formerly the capital of Somerset, and a Roman station (Ivelcæstor).

Tintinhull (3 miles) contains quaint houses, and the parish stocks remain.

Trent (3 miles) has a magnificent ancient carved screen and pulpit in the church, a thirteenth century chantry chapel. Trent Manor was one of the hiding places of Charles II. Permission can be obtained to view the secret chamber.

Dealers (dark room), Tayler and Brett, The Medical Hall, Yeovil.

Uttoxeter.

Uttoxeter, an old-fashioned quaint town in Staffordshire, is a good centre for photographers who wish to visit the valley of the Dove. In the centre of the market place is a bas relief of Dr Johnson doing penance in the Market Place, Uttoxeter.

Places of Interest.

Alton Towers (six miles), the seat of the Earl of Shrewsbury, with famous gardens.

Chartley (seven miles). A ruined castle.

Croxden Abbey (four and a half miles), the ruins of a Cistercian monastery.

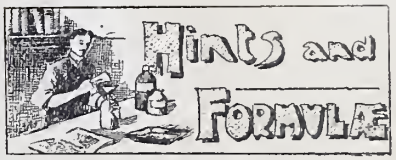
Dovedale (fourteen miles), famous for its scenery, can be reached by rail to Ashbourne, and thence for four miles along the banks of the river.

Doveridge (two miles) has a fine old church, with a yew tree 22ft. in girth.

Sudbury (five miles), the seat of Lord Vernon, ancient stocks in the village.

Tutbury (seven miles), picturesque ruins of Tutbury Castle on a hill top.

Dealer (darkroom)—G. R. Hankinson, High Street, Uttoxeter.



An Eikonogen Developer.

The following developer is due to Mr. Chapman Jones, and will be found to be an excellent one for all ordinary negative work. A pint of water is boiled briskly for some minutes to drive out all the air, and then, while it is still warm, the following ingredients are added in the order given:

Sodium sulphite	...	2 ounces
Sodium carbonate	...	2 ,,
Potassium bromide	...	10 grains
Eikonogen	... ...	1 ounce

This stock solution will keep in well-corked bottles for several months. For use, it may be diluted with from two to four times its bulk of water, according to the speed of action required.

Belitzki's Reducer.

This is a one solution reducer, will keep in the dark indefinitely, can be used over and over again, and when inactive and exhausted the colour changes:

Potassium ferric oxalate	22	grains
Sodium sulphite	... 18	,,
Water	... 1	ounce

When dissolved

Oxalic acid	 3	grains

are added, and the mixture shaken till the blood-red solution turns green. It is decanted from any undissolved acid, and then

Sodium hyposulphite	... 120	grains
Dissolved in water	... ½	ounce

are added. The reducer can be applied immediately after fixing, or to a previously dried negative, and causes no stain.

To Restore Faded Prints.

One of the most reliable methods for restoring a faded print is the following: If the print is mounted it must be soaked off and well washed to ensure its freedom from any mountant. It is then immersed in a solution of neutral gold and potassium chloride in proportions of four grains of the gold-potassium salt to four ounces of water. The print is allowed to remain in this until it is sufficiently restored, and is then well washed and refixed in an ordinary hypo bath—two ounces of hypo to ten of water—and thoroughly washed in the usual manner. These manipulations should be carried out in a subdued light.

A Developer with Acetone.

Owing to the action of acetone on sulphite it is possible to make an active developer merely by adding acetone to the solution of pyro preserved with sulphite. Thus a convenient stock solution of pyro may consist of—

Sodium sulphite	...	4 ounces
Pyro	...	½ ounce
Water	... ..	10 ounces

This is a 5% solution, and may be diluted for use by taking for each ounce of developer 80 minims of the above stock solution, and adding 50 minims of acetone.

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

A MASTERY of technique is an excellent thing in the pictorialist; nay, I hope I have made it clear that I hold it to be an essential thing. But it is not, nowadays, a very difficult thing to acquire. And



A Landscape. *By William Scott.*

—perhaps because it is so easy—it does not command, by itself, any very great admiration.

The phrase "mere technique" is perpetually on the pens of every photographic critic. Perhaps "mere technique" is too customarily scorned. I, for one, shall always, I think, take pleasure in that beautiful result of man's ingenuity, a technically perfect photograph, however common it may become (and it is less common than is supposed)—but if I am asked to look upon it as in any sense an artistic object I shall at once range myself with those who proclaim that technique alone is insufficient. There must be Mind, controlling the technique and expressing itself through the technique; and—if the picture is to be worthy—the Mind must be original, the artist, photographer or otherwise, must have "something to say."

Bernard Shaw, in one of his most brilliant essays, dwells very pointedly on this truth. "If technical facility were the secret of greatness in art," he says, "Mr. Swinburne would be greater than Browning and Byron rolled into one, Stevenson greater than Scott or Dickens, Mendelssohn than Wagner, Maclise than Madox Brown."

Furthermore, I do not think I am misinterpreting him when I add that he insists that ideas are greater than technique, that the man with "something to say" will evolve his own appropriate technique; and even if



The Woodland Path. *By Victor G. Smith.*

this technique is less polished than that of a rival artist, the ideas will make the work of poor technique bigger than the idea-lessness of the good technique work.

"New ideas make their technique as water makes its channel," he writes, "and the technician without ideas is as useless as the canal constructor without water, though he may do very skilfully what the Mississippi does very rudely."

A couple of examples of landscape photography which lie before me brought to my mind the Shaw essay. Each of them is technically blameless. In each of them the photographer has palpably endeavoured to introduce an Idea by placing a figure in the composition. In each we see an indication that the photographer, looking at his view in the finder or on the ground glass screen has said to himself, "This scene lacks point, I will give it point by the aid of a figure or figures." But in each of them the Idea has ended there.

Look at these two prints, "A Landscape" and "The Woodland Path." Forget, for a moment, that they are examples of correct exposure, correct development, and so forth. Omitting these merits (and I grant that they are merits) from our estimate of them,



The Stableman. *By Edwin Bond*

what is left? Nothing. And why? Because of the poverty of Idea.

The introduction of the figures may seem to be in itself an Idea. But the introduction of the figures is neither original nor significant. They have no reason. The man musing with his hands in his pockets in the middle of "A Landscape" is simply being



Trying to Hide. *H. Southwick.*

photographed, or waiting, bored, for his comrade the photographer. Deliberately label the picture "Bored," and we have an Idea—though not a very brilliant one! Except for this possible and far-fetched suggestion I really cannot see that the figure stands for anything whatever except utter lack of inspiration. Without rhyme or reason the photographer felt that he wanted to expose a plate, and in an endeavour to justify the choice of this landscape he dotted a figure down in it.

The same criticism applies to "The Woodland Path." What the figures are doing, there, I know not. I grant that they arouse curiosity. One wonders whether they have had a quarrel, or whether the gentleman is a stranger to the lady, and is merely pausing naïvely to admire her, or to ask her if she is feeling unwell. But this curiosity of ours is aroused by their meaninglessness, not because we genuinely detect the presence of an Idea.

I am sorry to be so "down on" these two prints. Let me show you one, now, which, while technically perfect, seems to me to have an Idea in it, albeit not a very tremendous one. Turn to "Through the Firs," which is as sharp, as fully exposed, and all the rest of it, as a plate-maker could desire. Here, surely, we may credit the photographer with something more than technique. He had an Idea in his mind: the idea of the beauty of Nature's methods of framing her vistas, of Nature's dodge for emphasising perspective, of Nature's plan for expressing the notion which we crystallise in the word "Beyond."

There is no embroidery of that Idea—no figure popped down in the middle to wave a dramatic arm pointing at the outstretched plain spread below this fir-clad hill top. But the Idea is there, clear enough; and just in so far as it is there it lifts this print above the level of "mere technique."

"The Stableman" is another print containing an Idea—a simple, unemphasised Idea: the Idea of illustrating characteristically one of the employments of a humble life. Technically this print is not quite up to the level of the previous three, but there were harder difficulties to overcome. Artistically it suffers from the too great brightness of the carriage wheels and their prominence in front. Cover those wheels with their distracting spokes and you will see the stableman himself far more clearly. But without the wheels and the hind quarters of the horse the figure's task would have been less explicable. Nevertheless, even deleting these details, how much more noteworthy and virile is this figure than the wooden and meaningless ones in "A Landscape" and "The Woodland Path"! Why? Because he represents an Idea, and they do not.

"Trying to Hide" represents an Idea, too, but it fails, less because the Idea itself is not creditable than because its rendering has somehow missed the lightsome child-likeness which would have carried it off. The model hasn't entered into the fun of the thing: she isn't comfortable about it: she is too dressed-up to want genuinely to stuff herself into this hollow tree; and in her hand she carries what looks suspiciously like a pair of gloves—which is scarcely part of the outfit of a young girl rollicking in the woodlands.

Somehow, too, the whole episode seems to me to be divorced from those aspects of life which photography may legitimately set itself to render. Genuine hiding would scarcely occur in the camera's presence. This, however, is rather a two-edged criticism, and would bar many a picture which I confess to have praised. Still, a picture which inevitably reminds you that the camera must have made it has to be stunningly good to be a complete success.

An Idea which must surely have occurred only when the choice of a title was under consideration is illustrated by the amusing "How that Rabbit Stares!" (reproduced on page 141). The coy expression on the visage of the small nude is very comical, and the title is an



Through the Firs. *By F. R. Bickley.*

inspiration. If, as is possible, the photographer thought of the title before she exposed her plate, I must apologise for my doubts, and must add that her success has been remarkable.

Here, truly, is an Idea, and a pleasantly humorous one. It is art, if not of a very high order. Inasmuch as it is consistent, it is superior, a long way, to "Trying to Hide." And its technique is capital, though I don't know that I approve of the splash of high light that figures on the floor in the foreground.

But even were the technique wretched, one could forgive it all for the grotesque demureness on that self-conscious, George-Robey-like little countenance and the fat delightfulness of the pose. The presence of an Idea would have swamped our dislike of the badness with which it was expressed.



Flower Photography.

Getting flowers to photograph : the selection of a suitable background : ordinary or orthochromatic plates : lighting and exposure.

PHOTOGRAPHS of flowers figure very largely indeed in most of our competitions, and we have selected two very successful prints of these subjects to illustrate the notes on flower photography which we print below. These notes are from the pen of Mr. James Thomson, and were part of a series of articles by him which appeared in "American Photography." They deal with the technical side of flower photography, and will be found very helpful by those who wish to undertake work of that kind.

Flower photography, while it has considerable limitations from a pictorial point of view, offers many facilities which other classes of subject do not present. The work can be carried on almost without reference to the weather, the lighting is completely under control, and the arrangement also. This arrangement seems to be quite the crux of the work, to judge by the large numbers of flower photographs that we see which, satisfactory otherwise, fail in this respect. But let us get to what Mr. Thomson has to say, dealing first with the subject of

Backgrounds.

While a pure white background may in some cases serve, a dead black one should never be used, regardless of the fact that it is sometimes to be met with. Painters would never resort to such a background, lacking, as it does, all remoteness, all atmosphere. Richness and variety may well be had in a background without in any degree detracting from the point of chief interest. Nor can we do justice to the subject where all atmosphere is lacking, which is the case when an inky background is employed, an even, solid, undeviating black.

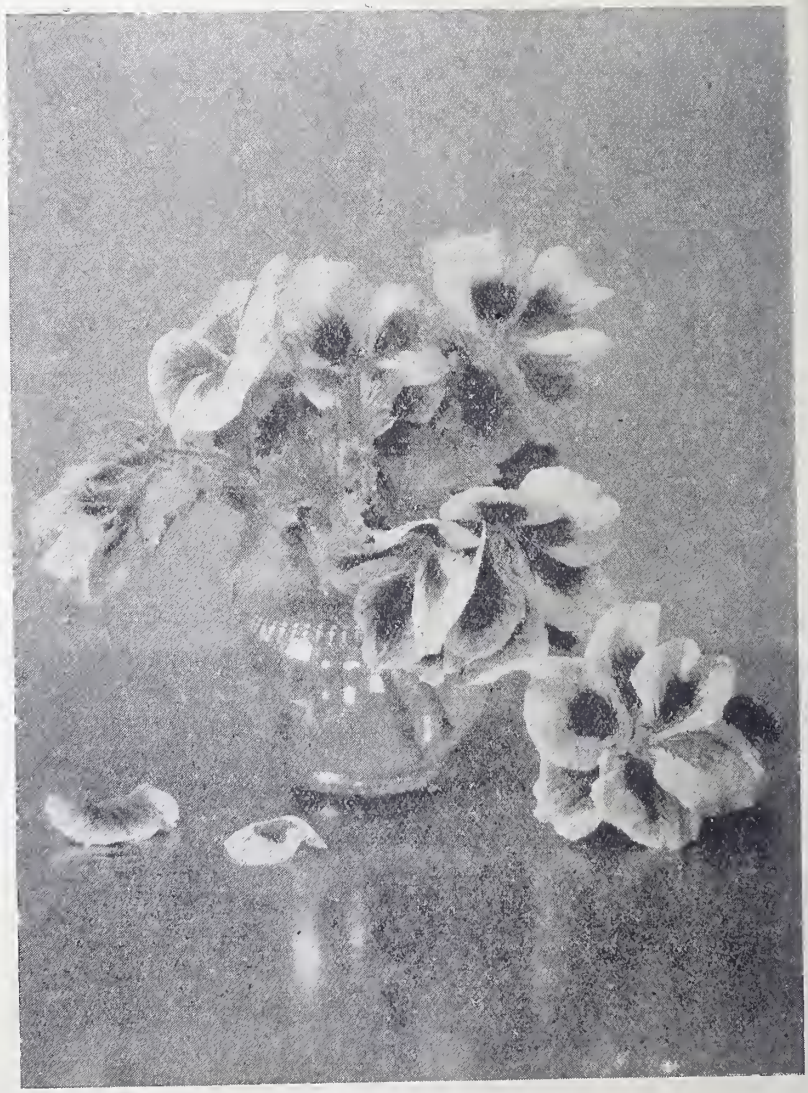
Mounting board, black, dark grey, or even sage green, will be found useful; pre-eminent for the purpose are shaded mounts. A piece of grey or drab felt will also be useful, while in many cases the regular portrait background suspended some distance behind will serve. In such a case the flowers may be arranged in a vase, the latter being placed upon a low stand, or even on a chair, the camera being on a table of the usual height. Thus while the flowers are arranged to suit, in a vase, the latter will not show in the picture at all.

Flowers arranged in tall glasses, or even in a tumbler, are sometimes quite effective, the stems, showing through the water and glass, adding to the beauties of the composition. One should guard against the heavy shadows caused by having flowers too near the background. Where this cannot be avoided, the dark recesses may be flooded with light from a hand glass during exposure.

I have found it possible, when using a drawing-board covered with felt for a background, to place it on edge inclined against the wall, pinning the flowers in a vertical position, with long black pins having small heads. To fix a spray or a branch, say, of roses, a long hat-pin deprived of its rather bulky head will serve admirably, as the relief obtained by standing so far away from the background gives freedom from cast shadows.

Plates.

While ordinary plates may serve for some subjects where a very full exposure is given, orthochromatic plates, by all



Pelargoniums. *By Agnes Dickie.*

means, should be used where colours such as blue or yellow are involved. A colour screen, while useful in the blue, should be employed carefully where delicate shades of green or yellow are at stake. The fact is, by the use of the filter with yellow, such as will be found in the narcissus family (jonquils and daffodils), we are quite as likely to overdo matters—in other words, over correct—the flowers in the resulting picture having the same value as if they were white instead of pale yellow.

Not alone in the rendering of colours are the orthochromatic plates superior. Even in the case of paper-white flowers, a softer effect and a more varied gradation will be discernible, while at the same time greens—such as the foliage presents—are rendered of true value, something that cannot be said where the ordinary plate is employed, unless a very full exposure be given. Ordinary plates it will always pay to back, though the need is not so apparent in the orthochromatic, in some of which there is a red colouring matter in the film.

Lighting.

A room with two windows for such work, I hold, is an advantage. With a soft north light there is no need to filter the light in any way by muslin or otherwise. The subject should be lighted with the direct light, which should be the north, while an opposite window may be used instead of a reflector, simply to soften the shadows. In this way we can have an even, subdued light, or, when occasion demands, say when brilliant reds and yellows (which, alas! are apt to be far from brilliant in the resulting print) are in evidence, we may—and in truth we must—flood the blooms with a strong light, requiring all of it, too, at that.

In photographing the difficult dark reds and the equally difficult, though (to the vision) luminous, oranges and deep yellows of infinite variety, no sustained exposure in a subdued light will impress the image on the film. We, of necessity, must let the brilliant light shine away down into the innermost recesses of the flower, else failure is certain. In truth, unless the flower we are attempting be a very beautiful or a notable specimen it is much better to let it alone, the game being hardly worth the candle. The doing of full justice to such subjects is so walled up with difficulties—in some instances well nigh insurmountable—the average worker would better tackle something easier.



Pansies. *By J. Perrin.*

"Red" Flowers on Ordinary Plates

Some flowers, however, called red by the generality of people, are not red at all, there being more purple in their composition than red; these are not at all difficult to photograph, even with ordinary plates. There are a great many roses that come under this category, and pinks also.

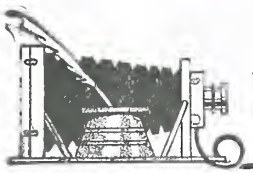
As regards exposure, nothing definite can be laid down, so much depending upon local conditions—paper on the walls, etc., also on camera extension. Dark colours, even with a strong light, will require from four to six times as long as white, the reds especially making small (and slow) impression on the sensitive plate.

Flowers just brought from garden or greenhouse are in no condition for photographing. They should be placed in water for an hour or so, where it is shady and cool, the result of which will be an astonishing recovery of vigour and stiffness of stem. Flowers should never be placed in the ice chest or refrigerator, though people have been known to do it. When removed from so cold a place to a warmer, drooping will most certainly follow, and that speedily. Some roses of the old-fashioned sort must be photographed within a very few hours after picking, else they will begin to fade and fall to pieces. Tea roses, however, will be found to last very well in water, as do pinks, narcissi, jonquils, daffodils, gladioli, and the like.

Making the Exposure.

Where flowers are apt to fade quickly, it is the part of wisdom to employ the most rapid plates and short exposures. Except in the case of full-size roses of a large type, where great depth of definition is in order, photographing may be done with stop f/32 or f/22.

In summer, flies are sometimes bothersome, alighting upon the flowers during exposure, thus causing movement and consequent blur in the resulting negative. It is well, therefore, during the time when the shutter is open, to stand by with watchful eye to keep them off.



Arranging Flowers for Photography.

Some Devices to Facilitate Work, and Some Cautions as to Pitfalls.

THE simple arrangement of three daffodils on the top of three rigid straight stems is one which only has precedent to recommend it, as the number of photographers who have perpetrated this stock subject must be legion. It will be well to avoid the temptingly easy subject, therefore, and try for something less hackneyed.

Anyone who attempts to group flowers for the camera for the first time will be troubled by the way they swing round in the ordinary vase. One does not seem to be able to control their position properly. If the vase or holder is not going to be included in the photograph, an ordinary glass funnel, upside down, will be found handy. Its shape causes it to stand very firmly, while the small opening of the tube does not leave much room for movement.

Another useful appliance is a strip of sheet lead about an inch wide and a foot or more in length. It is stood up on its edge, and bent into a series of corrugations in which the stems of the flowers can be firmly gripped. The flexibility of the lead allows the position of the blooms to be adjusted to a nicety; and this, on the whole, is one of the most convenient methods of holding them. Where the vase is opaque, or where it is not to be shown, it is often convenient to fill it with sand. This holds the stems in position well.

Vases for flower photography should be plain in character, or they will take attention from the flowers. Plain glass of some graceful shape is very suitable, but cut glass vases are to be avoided, on account of the brilliant spots of light formed by their facets.

It is difficult to lay down definite rules for arrangement, but one may give general hints. The blooms should be clustered together rather than scattered. They should make one mass and not a number of spots. Anything like a regular design in their arrangement must be avoided; at the same time they must not be higgledy-piggledy. The trick of letting a fallen flower lie on the table below the main group is best left alone, as it is very threadbare. If the composition calls for something to break the even character of the table, it is often got very effectively by using a polished table top and arranging for some of the blooms to be reflected in it.—W. PHILLIPS.



Under the Trees. *By H. C. Buckle.*

The mark 

of quality.

IMPERIAL
Special Rapid
PLATES

For successful holiday negatives.



DARK ROOM DIALOGUES

LAWSON on his return from his holiday had the satisfaction of knowing that he had several dozen exposed plates to develop—exposed, too, on subjects which he hoped would give him some interesting negatives; and when the three friends met in the train one evening on the way home, he pointed out that the developing was to begin that night, and that, if they cared to look in, later on, he might be able to report progress.

Oliver picked up the sunburnt man, accordingly, and together they went on to Lawson's house, where they found him sitting disconsolately in the garden.

"What's the matter now?" asked the sunburnt man. "Why aren't you developing?"

"Why, indeed," was the reply. "You know the trouble I took to make sure the plates were all right before I started. I thought I was not running any risk at all. And look there!" and he produced a wet negative.

"That's not very encouraging, I must say," said the sunburnt man.

"And you see what is wrong with it," said Lawson. "It is hopelessly fogged, and is actually reversed in many parts, being a positive instead of a negative. They must have been rotten plates."

"So it is," said Oliver. "But, do you know, I don't think it is the plates at fault. I have heard of reversal setting in in very bad plates; but a much more common cause of it is excessive over-exposure. I expect you gave this plate far more exposure than you should have done, and it is just a bad case of over-exposure."

"I don't know about that," said Lawson. "But I have kept a note of my exposures, and can soon tell you." He was not gone more than a minute, and came back with a little notebook in his hand. "Here you are," he said. "No. 20, it was, bridge and church, exposure 1-25th second at f/11, light good, 4 p.m. That does not sound like great over-exposure, does it?"

"Hardly likely," said Oliver; "but there is the reversal. What do you make of it?" he asked, turning to the sunburnt man, who was looking very critically at the plate.

"You did not develop this in your own dark room, Lawson," said he.

"I most certainly did," said his friend.

"Then your dark room lamp is altogether wrong."

"Oh, speaking of light, the burner in it was broken, and so, as I wanted to get a plate or two done as soon as I could, to see how I had been going on, I pulled the brown paper off the window, and used daylight. There are two layers of red fabric over the window and one of yellow, so that could not have hurt it. Besides, as you know, we have developed plates quite safely there in the past."

"Mere light-fog, if that is what you suggest, could not cause reversal, could it?" said Oliver.

"*Mere* light-fog might not," said the sunburnt man. "But it was clear that Lawson's plate was not over-exposed—in fact, I should say it was very much under-exposed; and he has been developing it in a powerful developer, as you can see from the fog and the excessive density in parts. Moreover, he has been doing it by an unsafe light, and I will lay a wager that in his eagerness to see what was on the plate, he did not keep the dish covered."

"Quite true," assented Lawson.

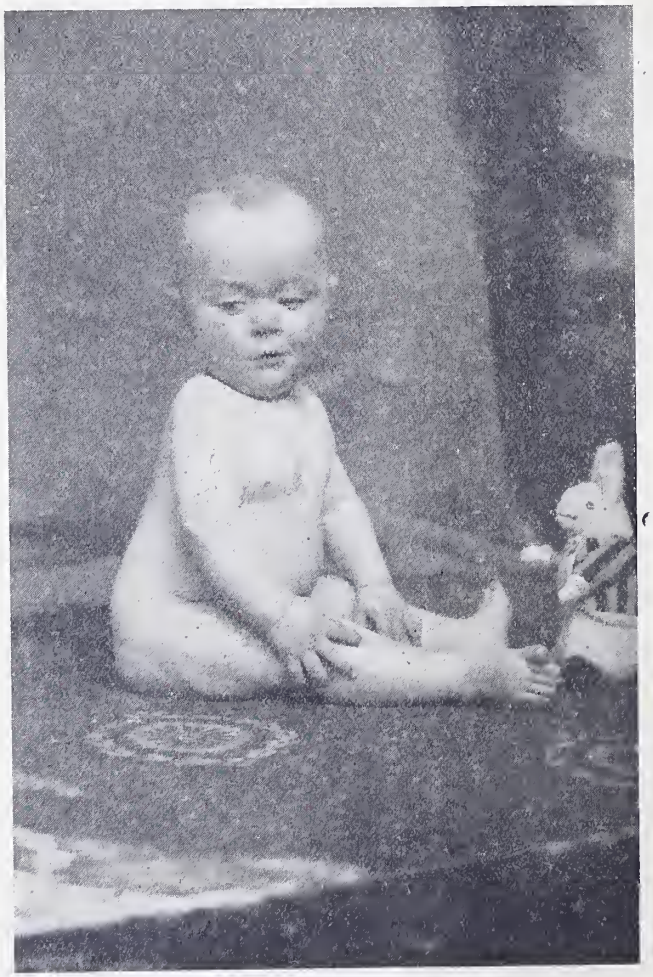
"Well, a partial reversal is not at all uncommon under those circumstances. I have seen several examples of it at the club."

"I don't quite see why it should fog a negative into a positive, all the same," said Oliver.

"I don't pretend to say why it does it," replied his friend. "I only answer for the fact that it does."

"Has there been no explanation offered?" asked Lawson.

"Yes, there have been explanations, but I don't know how far they fill the bill. The most plausible is that the image first developed up acts, itself, like a negative, the black parts protect the sensitive layer under them from the



How that Rabbit Stares (*see page* 136). *By Mrs. Blaker.*

The excellent qualities of **Seltona Paper** and the uniformity and regularity of manufacture have placed it in the front rank of photographic daylight printing papers. **Seltona,** as the name implies, is a self-toning paper, which contains all necessary chemicals required for toning in the emulsion; the gold is present not only in the most convenient form, but in a condition where it can do its work of toning to the best advantage; in fact, much better than with ordinary printing-out paper, even when toned in separate toning and fixing baths. The correctness of this assertion can be proved by the fact that with **Seltona** double tones are non-existent. **Seltona** not only saves time, but also gold, as an ample quantity is contained in the paper to ensure any tone required. There is no waste through loss of material.

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unsafe light, the clear parts let it through, and then as development is carried on further, the image printed in this way becomes altogether more powerful than the original negative image, and so the plate in the clearest or least exposed parts looks like a positive. Were it a positive from over-exposure, it is almost certain that the positive parts would be those which were most, not least, exposed."

"The explanation is plausible, at least," said Oliver.

"Yes," said the sunburnt man, "but I don't know that it is anything more than that. The fact at least remains that if you develop an under-exposed plate for a long while in a powerful developer, by an unsafe light, you are very likely to get reversal, just as Lawson has done."

"But I don't see why my light should be unsafe," said Lawson.

The sunburnt man made no verbal reply, but, taking him by the arm, walked round to the side of the house whence the window of the dark room could be seen. Then he asked, "What was the colour of the fabric which you put next the glass of the window?"

"Ruby," said Lawson without hesitation.

"Do you call that ruby," said his friend, pointing to the window, which even the fading evening light was sufficient to show as a tawny grey.

"Why! it's faded right away," said Lawson in astonishment.

"It has faded a very great deal," said his friend, "and quite enough to make it altogether unsafe for any photographic process."

They said no more, but rejoined Oliver, to whom Lawson related what had happened.

"What do you propose that I should do?" he asked at the finish.

"Well!" replied the sunburnt man, "I think I should make up a perfectly fresh lot of developer altogether; I should get a new burner fitted into the dark room lamp; and I should carefully time the development of the first few plates, taking the temperature of the water. As soon as you find you have developed a correctly exposed plate correctly, I should advise you to give all the other plates the time you gave that one, provided the temperature of the developer remains the same. You can keep the dishes covered all the time, and you will get no more reversal, you can bet your bottom dollar."

"So the plates are all right, after all?" said Lawson, eagerly.

"All right!" growled his friend. "Of course, they're all right. It don't pay to make bad plates to-day."

The Week's Meetings.

MONDAY, AUGUST 16TH.

Walthamstow P.S. Print Criticism.
Wallasey A.P.S. "Toning Bromide Papers." W. Hayes.
Bowes Park & D.P.S. Affiliation Lantern Slides.

TUESDAY, AUGUST 17TH.

Kinning Park C.C. Club Meeting.
Nelson P.S. Lecturettes.
Hackney P.S. Questions and Answers.
Handsworth P.S. Council Meeting.
Nelson C C. "Normandy." A. Smith.

WEDNESDAY, AUGUST 18TH.

Everton C.C. Members' Evening.

THURSDAY, AUGUST 19TH.

Queen's Park A.P.A. Monthly Meeting.

THURSDAY, AUGUST 19TH *(Continued)*.

Tetbury C.C. Ashton Keynes.
Handsworth P.S. "Matthew Boulton." A. G. Burt.

FRIDAY, AUGUST 20TH.

Nelson C.C. Foulridge.

SATURDAY, AUGUST 21ST.

Kinning Park C.C. Kilmalcolm
Halifax C.C. Shibden
Walthamstow P.S. Down the River.
Everton C.C. Upholland.
Wallasey A.P.S. River Dee.
Queen's Park A.P.A Gourock.
Glasgow S.P.A. Motherwell.
Batley & D.P.S. Adel Woods.
Dennistoun A P A Barhead
Bristol P C. Portbury and Weston-in-Gordano
Burnley C.C. Higherford and Thorneyholme
Wakefield P.S Ryhill.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

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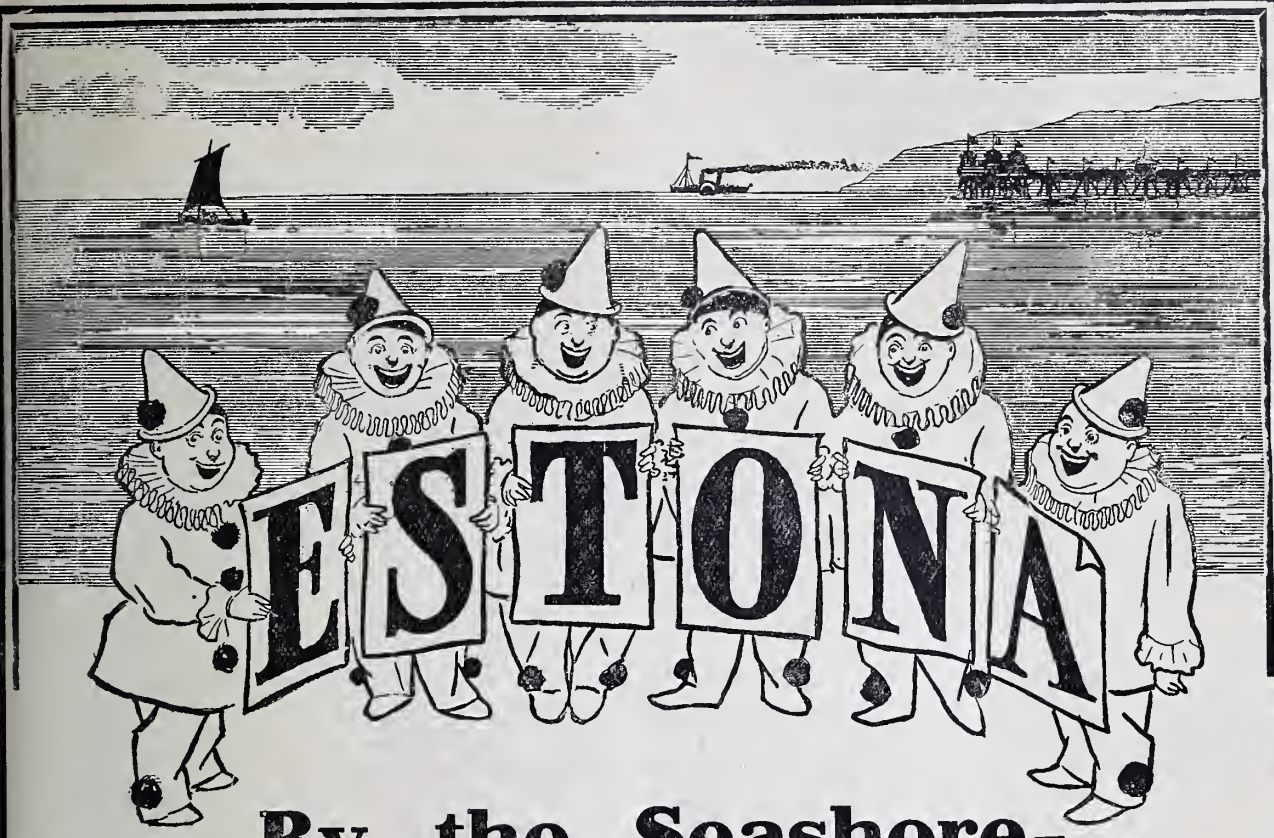
TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

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By the Seashore—

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The Editor is not responsible for the Opinions of his Correspondents.



WASHING PHOSPHATE PAPERS.

Sir,—With reference to your leading article on Silver Phosphate paper in the issue of August 3rd, 1909, one of the writers (H. G. Bailey) being the lecturer referred to in connection with the washing of prints, some further remarks may perhaps be useful.

The undersigned have made some experiments with "Ensyna," and also with Paget "Phosphate paper" regarding time of washing, and have come to the following conclusions :

It is important that the final washing of the prints should take place in running water, as if left to soak in a dish, even after ten minutes' washing, there is enough "hypo" remaining to destroy the image completely if left soaking for another hour or so. This we have found to be the case both with ordinary "hypo" (fifteen per cent.) and also with the "Ensyna Acid Hypo."

Even if the paper is properly washed for thirty minutes in running water, the hypo is not completely removed, and we find on an average from a quarter to one-third grain remaining under these circumstances in a quarter-plate print, as estimated by titration with iodine.

This small amount *may* have no deleterious effect on a phosphate paper print, but the fact seems to have escaped your notice that they may be stored loosely in contact, or face to face in an album, with either P.O.P. or bromide prints, and then would very probably lead to stains and fading in these in course of time. We therefore recommend that these prints be washed as ordinary P.O.P, viz., for at least an hour in running water, as suggested by you.

Another point which may be of interest to your readers is that if one is uncertain regarding the exposure of a very dense negative, it is best to expose until a very faint image is produced. This on development will give a brown colour, and by relatively decreasing or increasing the exposure the desired tone can then be obtained.

A point on which we differ from the Editor is when he states that "very little difference (except in colour) can be detected between prints on phosphate paper which have had widely differing exposures." We find that with an exposure of very short duration a contrasty print is obtained having, of course, a blue tone, while with prolonged exposure the contrasts are softened immensely, thus increasing the scope of the paper.

Further, to amateurs it may be of use to know that the metol developer as given by the Paget Co. for use with their "Phosphate paper" may also be satisfactorily employed with "Ensyna," the only difference being that in the latter case it requires approximately twice as long to complete development.

Yours, etc.,
H. G. BAILEY AND T. J. WARD.

EXPOSURE WITH THE ADON LENS.

Sir,—Some short time ago an article in your paper gave a simple way for calculating exposure when using the Adon lens.

We were told that the f value of the Adon at full aperture was equal to twice the length of the camera extension in inches + $4\frac{1}{2}$. Thus at an extension of 9 inches the Adon would work at $9 \times 2 + 4\frac{1}{2} = f/22\frac{1}{2}$. Exposures could be calculated in the ordinary way by a meter once the working f value of the Adon was known.

In actual practice, exposures so calculated were to be divided by 2, 3, or even 4, according to the distance away of the objects to be photographed, as far distant objects require much less exposure (under similar conditions otherwise) than near ones.

This rule is simple, but a still simpler one for those who wish to avoid all calculations is to note the length of the camera extension with the Adon when the picture is focussed, and to stop down the Adon to the 32 mark (this is the full amount of stopping down provided for with the Adon lens), and then in good diffused light (no actual sun) to give the same number of seconds' exposure as there are inches of camera extension. Thus with camera extension of 9 inches give 9 seconds exposure, and with camera extension of 20 inches give 20 seconds' exposure, in good diffused light and with the Adon stopped down to its 32 mark.

In sunshine, or with objects over half a mile away, the exposures may be reduced to half or even one-third of the above. Also with short camera extensions, *e.g.*, 6 inches or less, we may give half the number of seconds for the exposure that we have inches of camera extension.

The above rule works very well in practice, and enables the Adon exposures to be known at once with no trouble and no worrying calculations.

Yours, etc.,
R. ELMOFF.

EXPOSURES WITH SHIPPING SUBJECTS.

Sir,—In *Photography and Focus* of the 27th ult., in an article entitled "Some Stray Notes on Yachting Subjects," Mr. Evan McGowan makes some statements which seem to me to require explanation.

To begin with, the assertion that the ordinary quarter-plate hand camera lens is of very little use for this work seems rather sweeping, as many excellent photographs are taken with comparatively short focus lenses. But as this is perhaps a question of opinion, I will pass to a statement which seems to me to be absolutely wrong, and contrary to the practice of most workers.

Mr. McGowan advocates a focus of 15 or 18 inches, and then says $\frac{1}{32}$ second exposure will be about right, leaving the question of under or over-exposure entirely on one side, and considering merely the question of getting a sharp result. This exposure is equal to 1-11th second with the usual 5in. or 6in. focus lens, used in a 5 × 4 camera, and surely this is nothing like sufficiently short from a "little boat in a choppy sea," leaving the movement of the subject out altogether.

If you will kindly publish this, perhaps Mr. McGowan will explain.

Yours, etc.,
ENQUIRER.

Victol—A Concentrated One Solution Universal Developer.

MESSRS. HOUGHTONS, LTD., of 88 and 89, High Holborn, London, W.C., have just put upon the market a one solution concentrated developer, which only requires dilution with some twenty or thirty times its bulk of water to be ready for use. Victol, as this developer is called, is a clear solution quite free from any tendency to stain either the fingers or the plates or papers that are developed with it.

It proved on trial to be an effective developer, not only for negative work on plates and films, but also for bromide paper and lantern plates. It works well with gaslight papers also, for which purpose it is used in a more concentrated form, one part of Victol being diluted with twelve parts of water, and a trace of potassium bromide added to keep the whites pure. A developer composed of one part of Victol to fifty of water makes an excellent tank developer for plates, giving fully developed negatives in a reasonable time, in most cases within half an hour.

Victol is one of the developers which cause the image to appear very quickly, the density gathering slowly afterwards. In this respect it is the antithesis of pyro. It is claimed for it that in concentrated form it keeps admirably, and that, although with age it may darken and go brown, it loses none of its energy. It is sold in three-ounce bottles only, price 1s. 3d.; and as a convenient and efficient all-round developer leaves nothing to be desired.

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"The time has come, the Walrus said, to talk of many things."

IF newspaper reports are anything to go by (although I do not for one moment suggest they are), some of the magistrates who occupy the seats of justice in this country are by no means rivals of Solomon. They frequently make observations in the most dogmatic and authoritative manner on subjects of which they are grossly and palpably ignorant. I have frequently noticed this fact when any photographic question has cropped up in court, and I now request the reader's attention to some words of magisterial wisdom in a recent case.

* * *

An applicant (hereinafter designated X., as I have not the pleasure of knowing his name) applied to a magistrate (hereinafter referred to as M.) for a summons against a photographer whom he had employed to enlarge his (the said X.'s) baby. That is to say, that the photographer was to make an enlarged print of the baby, and not to amplify it in imitation of the baby labelled "After using" in the advertisements of Fattenem's Patent Baby Food. In due course X. received the enlargement—which was more than he would have done had to sent to our Parisian friend and benefactor Tanquerey—but to his disgust he found that the large print represented an entirely different baby from the small one. Very properly, X. denied the paternity, and appealed to M. for a summons to secure a picture of his legitimate offspring instead of an anonymous and unpresentable brat.

* * *

The learned M. proceeded to compare the two prints with the air of an expert, and then remarked to the astounded X., "Why do you say it is not your baby? Clearly it is." X. with admirable self-control proceeded to point out that, whereas his baby was seated on a comfortable cushion, the enlarged baby was squatting on a mere mat. I do not think that this serious discrepancy is accounted for by the wise M.'s remark that in an enlargement the details are brought out. It will be news to most photographers that by enlarging a cushion it is converted into a mat. Nor can I admire M.'s further statement that we must allow a certain amount of licence to an artist, for, as X. promptly pointed out, the artist had abused his licence by making the baby "cock-eyed." The oracular M. proceeded to explain this defect of strabismus by eliciting from X. the fact that the baby was nine months old, and then observing wisely, "At that age they do not focus well." It is not clear whether he meant that all infants of nine months old are unable to prevent their eyes from "cocking," or whether he thought the child had taken its own portrait and had not skilfully manipulated the rack and pinion. What he probably meant was that it is impossible for a photographer to take the portrait of a baby without giving it swivel eyes, in the same way that the photographic art has not sufficiently advanced to enlarge a cushion without making a mat of it.

* * *

In any case, the magisterial expert refused to be convinced that the diverse kids were not identical, and refused to grant X. any redress. But the sturdy X. declined to be content with a boss-eyed nondescript on a mat in lieu of his beauteous babe on a cushion, so he resolved to seek his own remedy. "The best way," quoth he, "is to meet him on the quiet by himself." Needless to say, the "him" referred to was the photographer, whom, if not already too late, I would earnestly advise to avoid a "quiet" meeting with the outraged X. Certainly the magistrate conceded a point when he admitted that perhaps the enlarged baby was not a first-rate advertisement for the photographer, to which the generous X. replied, "I'll give him an advertisement when I meet him." This is a liberal offer, but again I would advise the photographer to dispense with that little advertisement. I doubt if it would be of much use to him.

I wonder if the magistrate realises the possibilities following from his decision. It is apparently quite legitimate for a photographer to buy some cheap negative of a strabismic kid with a snub nose and wrong ears, squatting in hideous discomfort on a ragged doormat, make a big stock of enlargements from it, and ladle these out to all comers as faithful portraits of their cherished olive branches. The only risk the photographer would run would be that of receiving advertisements on the quiet from alleged but indignant fathers. My sympathies are entirely with X.; and should he by any chance see these lines I hope he will send me the portrait of his very own baby, and I will gladly make him an enlargement from it. I will guarantee an unaltered cushion, and the visual axes shall be strictly parallel. I only make one stipulation: I don't want an advertisement from X.

* * *

A contemporary which always deals intelligently and capably with photographic topics is "Cycling." In its recent pages I found some interesting illustrated information as to how its staff of photographers do their work, and if they care for a testimonial from me I must say they do it uncommonly well. I notice that their photographers when awheel carry their cameras on their backs. That is what I used to do myself. I don't now. I carry a camera in my pocket. There is a reason for the change. Once upon a time I was carrying a twin-lens camera about the size of a church in a case on my back, and I was coasting down a hill at about a thousand miles an hour. This is my estimate of the speed for the purpose of this narrative only. Now, the strap of that case broke; and never shall I forget the height to which that camera soared, nor the sickening thud with which after an interval it reached terra very firma again.

* * *

I also notice that "Cycling" photographers stand on the near side of the road to take "quick" photographs of approaching motors. This reminds me of the little boy's explanation of the phrase "the quick and the dead" as meaning that the "quick" dodged motor cars and the others did not. I presume the staff is fully insured.

* * *

I cannot express entire approval of "Cycling's" dark room arrangements as shown in another of the pictures. All the expensive cameras are effectively distributed about the room, and I can only trust that this is not the usual practice, but has been adopted merely for the occasion with a laudable but mistaken desire to make the dark room look pretty. One reflex camera is carefully planted so as to receive in its open hood some of the drippings from a row of prints suspended in a gallant line overhead. I say some of the drippings only, because the rest obviously trickle down the necks of the handsome operators who are developing plates by flashlight. Water may be good for their necks, but I doubt its efficacy in the hood of a camera.

THE WALRUS.

SUBSCRIPTIONS.

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PHOTOGRAPHY AND FOCUS.

PUBLISHED·WEEKLY·
FOR·EVERY·CAMERA·USER.
EDITED·BY·R.CHILD·BAYLEY.

August 24th, 1909. TUESDAY. No. 1,085. Vol. XXVIII.

The Reflex Camera and Its Use.

Invaluable for lenses of large aperture or long focus: the advantages of different patterns of reflex: the most suitable aperture of lens: very high speeds seldom, if ever, wanted.

IT has been said that the popularity of the reflex camera, which is the most striking feature of the photographic apparatus trade during the last year or two, is merely the result of a passing craze, and that in time it will die down, and the reflex will share its present pre-eminence with other patterns.

Although it is highly probable that fancy plays a considerable part in the boom which the reflex is enjoying, we cannot help recognising that it is by no means the only cause that has been at work, and that there are very sound reasons why cameras of the reflector type are popular, and why that popularity has come at the present moment.

It is to a large extent a direct outcome of the advances in modern lens-making. So long as f/8 was the standard aperture for the rapid lens the advantages of the reflex in the ordinary hand camera size of quarter-plate were not very marked. It is a comparatively easy task to focus a 4½in. or 5in. lens working at that aperture by means of a scale, as the accuracy of the adjustment does not require to be very great. Such a lens has a considerable depth of focus, and the hundreds of thousands of hand cameras fitted with a scale and some such lens that are in use testify to its practicability.

Large Aperture Lenses require the Reflex.

When we come to use a lens which works at f/6, or even at f/4.5, with some such focus, or when we use an f/8 lens of seven or eight inches focus, the degree of depth which the lens possesses is so much reduced that the focussing has to be done with much greater accuracy, and the scale is only useful to those who are able to judge distances with precision. It is then that the reflex camera becomes so valuable. The utility of it is even greater than the previous sentence by itself would seem to indicate.

These very rapid and long focus lenses are chiefly used in hand camera work for figure studies, animals, and similar work, where the object that is being photographed is very near the camera, and this, again, calls for more accuracy in focussing than it is easy to get when estimating distances and setting the lens by a scale. The other advantages of the reflex type are minor ones besides these, and it is doubtful whether they have played any large part in its popularity, especially as they are not without counterbalancing disadvantages in bulk, weight, and general want of handiness.

The fact that no lens approaching a wide angle can be used in a reflex camera, on account of it fouling the mirror, is also a limitation from the point of view of the all-round worker. Having thus pointed out what, in our opinion, are the most outstanding advantages attached to the reflex, it must be decided by each photographer for himself, after a review of his own requirements, whether the type is what he wants or not, and then when he has answered that question in the affirmative he will find himself confronted by the further one of the pattern of reflex to obtain.

Not Entirely a Question of Cost.

To some extent the quality of the workmanship in the camera is decided by its cost, and good workmanship in a reflex is the very first consideration of all; since all its advantages rest upon it having originally and maintaining unaltered an exact adjustment of its various parts. But the workmanship is not entirely

MEMORANDA *for the week.*

In this space we announce, as occasion arises, things which in our readers' interests they would do well to note.

decided by the price, as some of the lower priced forms are produced at that lower price by the omission of more or less costly conveniences which are not in the nature of necessities. A rotating back, a connection between that and the ground glass (by which we no longer have to remember whether the plate is vertical or horizontal, but see its position from the ground glass itself), a self-capping elaborate shutter, long extension, and rising front are some of the things which go to make a well-made reflector costly, and it is very unwise to expect all these movements coupled with the finest workmanship in a camera at a low price. On the other hand, although they are undoubted conveniences, the main advantage of the reflex can be obtained without them.

The Two Reflex Systems.

Reflex cameras may be divided into two classes—those in which the mirror is raised automatically before exposure as soon as the finger commences to press the trigger, and those in which it is lifted by the act of pressing the release, which then has a rather long movement.

Much can be said in favour of either of these patterns. The former is much less likely to shake the camera, and with it it is certainly easier to get rapidly moving objects on the plate in exactly the position that is desired. With the latter, as soon as the pressure is taken off the lever the mirror returns to the down position, and does not require setting. Some patterns get over this.

Perhaps on the whole the balance of advantage will be found to lie with the latter as far as comparatively low priced cameras are concerned, although in the more expensive patterns the other movement would be what we ourselves would select.

No Need for Excessive Speeds.

The shutter of a reflex camera is invariably of the focal plane type, and in every case with which we are acquainted is graduated up to the thousandth of a second, some going much beyond this. We have known cases in which one camera has been preferred to another for no other reason than that its sanguine maker had provided a shutter which nominally would work at the two-thousandth of a second. The purchaser thought this a decided advantage, although he has never yet come across the subject which needed even the hundredth of a second, and is not in the least likely to do so.

Except when trains, motors, and similar subjects are to be attempted as a kind of *tour de force*, there is no need for any speed beyond the hundredth of a second, and even when the photographer is moved to perpetrate a picture of a motor, if it is real speed which he wants to suggest he can do it quite as well with a hundredth as with a thousandth—better, in fact, as he is better able to pick and choose his subject. Fifty miles an hour in reality is often far less suggestive of speed than ten.

For most of the photography for which a camera of the reflector type is useful, such as for groups, animal subjects, etc., the exposure ranges from a twentieth to a fiftieth of a second, and the high efficiency of the focal plane shutter, coupled with the rapid lens that the reflex allows us to use, enables such subjects to be photographed under ordinary conditions so as to yield fully exposed negatives, and not the mere silhouettes which moving figures in so many of the street scenes we see present.

The Most S· ıble Lens.

As the depth of focus problem is lessened very considerably by the use of a reflex camera, it is possible to use a lens of longer focus than is generally adopted in other instruments. When everything has been considered, a six-inch lens is a convenient length for a quarter-plate camera, and does away with all need to trouble about getting unpleasant perspective effects. The aperture must be largely a matter of the needs and aims of the photographer. We need only say here that unless a lens of seven or eight inches focus is being used the reflex does not offer any marked advantage over other cameras unless fitted with a lens of f/6.5 or larger aperture.

The introduction of series of lenses at f/5.6 or thereabouts has undoubtedly been brought about to meet the needs of the users of the reflex, and the aperture is a very convenient one. At the same time, our advice to anyone thinking of getting a reflex would be to get the most rapid lens he can afford. An f/4 instrument is quite usable on such a camera, and if it is only seldom that so large an aperture is required, when it is wanted at all it is generally wanted very badly.

R. C. B.



More Night Photography.

Mr. Wild this week puts before our readers a further instalment of his remarkable night work, though this time it is of a less sensational character than the instantaneous photographs taken in the West End, which appeared in our Spring Number. On the other hand, if not quite so startling, they possess the enhanced interest conferred by the fact that some of them at least are well within the power of the apparatus which most of our readers possess. Some of them, as he points out, might have been obtained with quite a slow lens, if the photographer did not mind a wait of thirty minutes or an hour. Mr. Wild's method of obtaining a rapid lens by adding a magnifier, so as to shorten the focus of one that is by itself not very rapid, is so simple that it is surprising that the suggestion seems so fresh as it does. No doubt it has been described before, somewhere, but it is at least not generally realised as practical. The wonderfully perfect corrections of some of our modern lenses have very properly given their owners a feeling that, where everything is so beautifully adjusted, a very little is required to throw it all out. The consequence is that it comes as some slight surprise to find that if we are content with definition, good but not *so* good as the modern lens will yield, we may do quite a lot to it in the way of modification.

Hand Cameras as Luggage.

A letter in the *Edinburgh Evening Despatch* is worth attention, as it shows the extent to which a bye-law may be stretched by an over eager official. The writer of the letter—an amateur photographer—was carrying a half-plate reflex camera in a case 10in. by 10in. by 13in., and was compelled by the conductor to pay for it as luggage. In view of the almost universal use of the camera now, it should be impossible for such a claim to arise, much less to be admitted. The thing is made all the more flagrant, as we understand that in Edinburgh the charge is not made for a bag of golf clubs, although these are not only much larger than even a half-plate reflex, but are also far more likely to inconvenience other passengers. We do not suggest that the charge should be levied on the clubs, but we do suggest that the Edinburgh photographers should elicit a definite instruction from the tramway authority to the conductors that hand cameras are not to be regarded as "cumbersome luggage." The contention is so preposterous that it is not at all likely that the authorities would maintain it, were they approached, say, by the Edinburgh Photographic Society.

Our Competitions.

On page 151 this week will be found full particulars of the various competitions which are at present open, and we would draw the attention of our many new readers to the opportunity which these afford them for comparing their work with that of others. This is one of the best ways to improve; and those who make a practice, not merely to send in a print now and again, but to enter regularly, and to take photographs for the special purpose of competing, will find that by doing so they almost unconsciously make steady progress on their photographic path. To all those who think of doing so, we would recommend a careful reading of the "Critical Causerie."

The Warranty of Plates.

It has been left for an amateur at Singapore to raise the point that a firm of dealers is responsible for the good quality of a packet of plates sold over their counter. The plaintiff, in an action before the Straits District Court, testified that he purchased a packet of plates, which, on development, proved to be all fogged. On applying to the dealers he was "advised to double the exposure and add three hundred per cent. of bromide of potassium." This he does not seem to have done, but instead brought an action for the money paid for the plates. The judge held that there was no warranty on the plates and dismissed the claim, as indeed was inevitable. From the report sent us, no evidence appears to have been given as to the way the plates were kept while in the plaintiff's possession, and the defendants alleged that the deterioration might have taken place then; moreover, they said there was nothing to show that the plates were bad. A curious feature of the case was that, although the plates were of a standard British make and were sold at Singapore, a British possession, they were purchased through *German* agents, and a witness stated that they could be got more cheaply through Germany than direct from England. This seems to be a matter to be looked into.

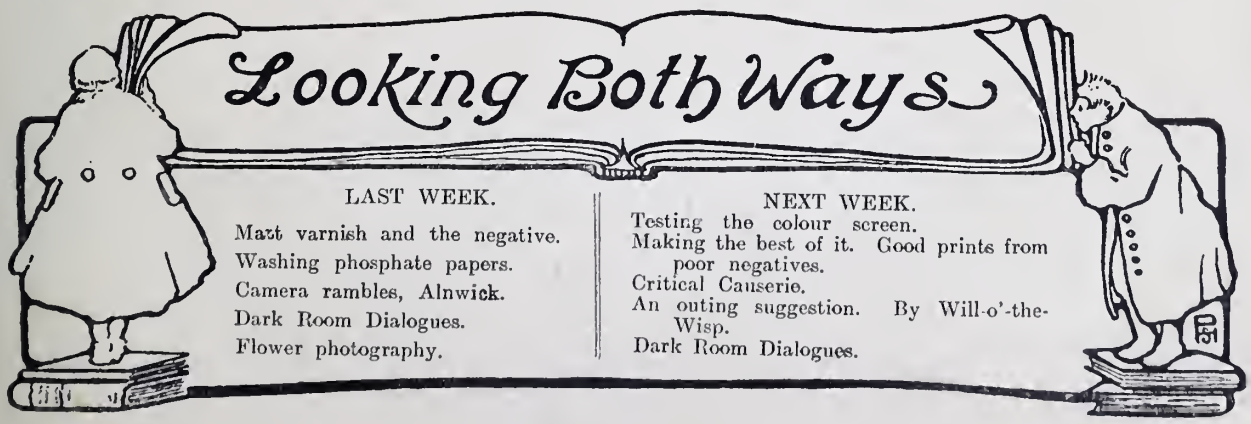
METHODS.

When Jobson takes a photograph, he makes a deal of fuss;
His method of procedure may be detailed somewhat, thus:

He walks about an hour or two
To get the finest point of view,
And then he'll scrutinise the scene
For half an hour upon the "screen,"
He twists his apparatus round,
His tripod ploughing up the ground,
Then, when the composition's right,
He has some trouble with the light,
Another standpoint then he tries,
Until the lighting satisfies,
He thinks the angle much too wide,
A longer focus lens is tried,
At length when he has got the best,
He makes a careful meter test,
His shutter, once or twice he'll click
To make quite sure it doesn't stick,
And then with trembling fear and doubt,
He pulls the dark slide shutter out,
Then full of thoughts anent its fate,
Old Jobson will expose a plate.

When Murray takes a photograph, he doesn't waste much time,
His method can be quickly told in very simple rhyme;

He finds a decent view, perhaps;
Then, with no more ado, he "snaps."



Robert Boyle's Early Portable Camera Obscura.

By Major-General J. Waterhouse, A.I.

SINCE my paper on the early history of the camera obscura was published, I have come across a description by the Hon. Robert Boyle of a portable and extensible camera obscura, in his paper on "The Systematic or Cosmical Qualities of Things," which was published in 1669. It appears to be the first printed account of a portable box camera, and of interest as the invention of an Englishman as well as for the curious notions as to the nature of the projected images.

After describing the effect of rendering a piece of opaque paper transparent to light rays by greasing it, he says: "I need not perhaps tell you that if a pretty large box be so contrived that there may be towards one end of it a fine sheet of paper stretched like the leather of a drum head at a convenient distance from the remoter end, where there is to be left a hole covered with a lenticular glass fitted for the purpose, you may at a little hole left at the upper part of the box see upon the paper such a lively representation, not only of the motions, but shapes and colours of outward objects, as did not a little delight me when I first caused this portable darkened room, if I may so call it, to be made; which instrument I shall not here more particularly describe, because I showed it you several years ago, since when divers ingenious men have tried to imitate mine (which you know was to be drawn out or shortened like a telescope, as occasion required) or improve the practice; and partly because that which I pretended in mentioning of it here, is to show, that since that almost every turning of the instrument this way or that way, whether it be in the town or open fields, one may discover new objects and sometimes new landscapes upon the paper, there must be all day long in all parts of the air where this phenomenon can be exhibited, either certain effluvia emitted every way from the objects or certain motions of insensible corpuscles, which rebounding first from the external object, and then from the paper, produce in the eye the images of these objects, so that the air is everywhere full of visible species, which cannot be intelligibly explicated, without the local motions of some minute corpuscles, which, while the air is enlightened, are always passing through it." ("The Photographic Journal.")

The Week's Meetings.

TUESDAY, AUGUST 24TH.

Burnley C.C. Higherford and Thorneyholme.
Nelson C.C. "Toning P.O.P. Postcards." J. E. Ashworth.

WEDNESDAY, AUGUST 25TH.

Everton C.C. Members' Evening.
South Suburban P.S. "Graduated Focus *v.* All Sharp."

THURSDAY, AUGUST 26TH.

Sale P.S. Monthly Meeting.
Handsworth P.S. "Stripping Films from Glass Negatives." W. Grove.

SATURDAY, AUGUST 28TH.

Southend-on-Sea P.S. Herongate.
Halifax C.C. Roundhay Park.
Bootle P.S. Surprise Outing.
Coventry P.S. Temple Balsall.
West of Scotland A.P.A. Bo'ness.
Erdington P.S. Wren's Nest, Dudley.
Hackney P.S. River Trip.
Oliver Goldsmith P.S. Hampstead.
Preston C.C. Chipping.

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

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REMITTANCES.—Postal Orders, Cheques, etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

EDITORIAL NOTICES.

ADDRESS.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.



A PHOTOGRAPHER in Anglesea getting excited in an argument was seized with syncope and fell, fracturing his skull.

RECORD PHOTOGRAPHS of the Sussex Record Society are on view at the Brighton Fine Art Galleries until the end of the month.

SURVEY PHOTOGRAPHS. The prizes offered by Mr. Victor Swan to the Prudhoe Camera Club for the best photograph of the Roman excavations at Corbridge, have been won by Messrs. E. Kent and Pringle.

STEREOSCOPIC BOOKS. It is stated in "Photo Notes" that a series of books of stereoscopic slides of interest and educational value is being started by Messrs. Gowans and Gray, Ltd., the first, dealing with "Birds and their Nests," being illustrated by sixty reproductions in half-tone.

OLD PLATES. Mr. J. Mauldon, of Sydney, N.S.W., sends us some excellent prints from negatives made this year on Britannia plates made at least twenty-five years ago by Messrs. Marion and Co. "I tried the plates out of curiosity," he writes, "and was both pleased and surprised at the result."

SUPER SPEED. Messrs. Elliott and Sons, Ltd., of Barnet, Herts, announce that they are now supplying an entirely new orthochromatic plate, under the name of the "Barnet Super Speed Ortho. 400 H. and D." The prices will be the same as for ordinary plates. We hope to review these in an early issue.

ACKNOWLEDGEMENTS. "Photographic Topics" for the current month contains in all five articles, beside minor notes, letters, etc. One of the articles is original, and the other four are credited to "Photography," "Focus," "Exhange," and "Exchange." They are all taken from *Photography and Focus*, which is thus the recipient of an obviously sincere compliment.

F.R.P.S. We note that applicants for the Fellowship of the Royal Photographic Society are now required to sign a document which states, "I agree to discontinue the use of the letters F.R.P.S. should I cease to be a Fellow of the Society." This is only as it should be; but the weak point is that there is no power to enforce such an agreement, and those who would break it are just those whom it is least desirous to see using the letters at all. By the way, we wonder when the Society will definitely place the selection of Fellows in the hands of the Fellows exclusively. That is the only way by which the standard of Fellowship is likely to be raised.

THE ISLE OF THANET Photographic Society is being wound up, and a resolution has been passed to hand over any balance or property to the Ramsgate Photographic Society.

A PHOTOGRAPHIC ALIBI. A man accused of housebreaking at West Ham, at 4.50 p.m. on Bank Holiday, was discharged, as he produced evidence that at 4.30 he was photographed in a group at Southend.

THE BOLT COURT SCHOOL of Photo-engraving is to be rebuilt, as the London County Council has agreed to acquire the present site of the school buildings and yards at a price of about £15,500. It was stated that the number of students has increased from 496 in 1904-5 to 638 in the present session.

£20 A DAY. Some people are born great, some achieve greatness, others have greatness thrust upon them. The "photographic king," according to a ridiculous paragraph that has been going round the lay papers, is named "George R. Lawrence," and he has been hired at £20 per day for a year to sail over Africa in a balloon and take photographs of the continent. The hirer is W. D. Boyce, who is said to be a Chicago millionaire. We hope he will get his money's worth.

"THE BOOK OF THE BROWNIES." This is not a fairy story, as its name might suggest, but an account in sober truth of the simplicity in photography which has been brought about by the Kodak methods, as shown particularly in that fine little series of cameras—the Brownies—and in the Kodak developing machines for use with them. It is beautifully illustrated, with reproductions of photographs taken with Brownies, and makes out an excellent case for the cameras as suitable for presents to young people. Anyone thinking about a present for a boy or girl, should certainly drop a postcard to the Kodak Co. at 57-61, Clerkenwell Road, London, E.C., for a copy, which will be sent post free.

TIME DEVELOPMENT. Mr. F. Harris, writing from Chili, says: "It may perhaps interest you to look at these two prints of forest in Patagonia. They both had five seconds' exposure at f/16. They were taken by a lens of very ordinary class. It has no name at all; in fact, possibly the maker, in his prophetic soul, knew it was unnecessary, as it gets an entirely new lot of names applied to it every time I take it out, and deserves them all. I have worked out the following times of development. The stock solution consists of one metol quinol tabloid and one M.Q. accelerator to one ounce of water. For use one ounce of this solution is diluted with four ounces of water. The plates are Imperial Special Rapid, 225 H. and D. The tabloids, Burroughs and Wellcomes. The times are as follow:

Cent.	Fahr.	Time.
9.	48	29m.
9.5	49	28m.
10.	50	27m.
10.5	51	26m.
11.1	52	25m.
11.6	53	24m.
12.2	54	23m.

DISCOUNTS. Messrs. Fuerst Bros., in sending us their latest price list, point out that on certain lines their discounts have been increased. They will be glad to send full particulars on application to any of our trade readers who have not yet received a copy.

THE SELECTION COMMITTEE of the Photographic Salon, it is officially announced, is to consist of J. Craig Annan, F. H. Evans, W. Benington, F. J. Mortimer, George Davison, J. Dudley Johnstone, M. Arbuthnot, with Reginald Craigie (*ex-officio*).

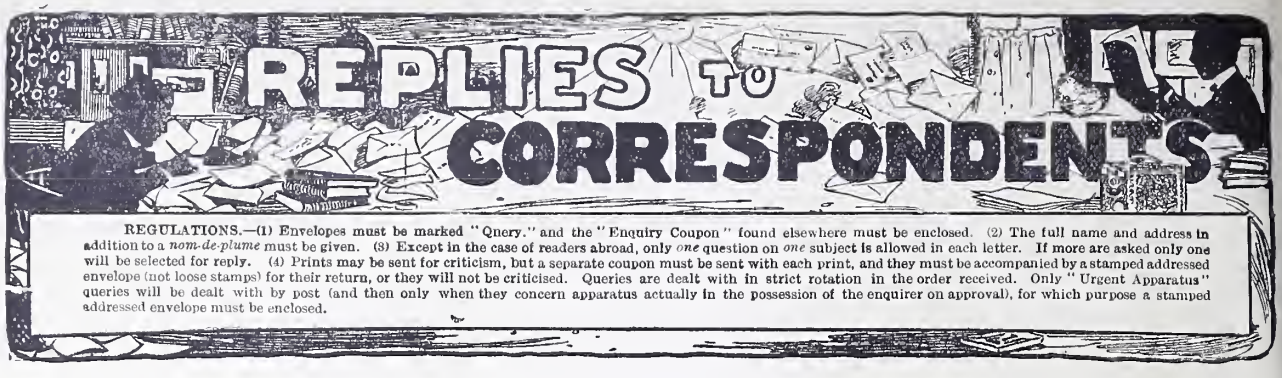
THE ARGUS REFLEX camera is now supplied by Messrs. W. Watson and Sons in 3½in. × 2½in. size, price £11 10s. with three solid slides; £12 10s. with three book-form slides. A changing box for twelve plates can be supplied, if preferred, in place of the three book-form slides. The camera will take a 5in. Holostigmat lens.

AN ADMIRABLE SYLLABUS for the forthcoming session has been issued by the Liverpool Amateur Photographic Association. The meetings are held on Thursdays at 7.45 p.m., at the rooms of the Association, 9, Eberle Street. Photographers in Liverpool and the district who are not already members of this most go-ahead and successful body should lose no time in dropping a line to its honorary secretary, Mr. C. F. Inston, 25, South John Street, for particulars of membership.

PLATES FOGGED IN THE CAMERA. Mr. A. Barratt writes: "I have had made a simple arrangement to prevent the fogging of the plate, in consequence of flare. This is a brass tube extension, 1in. in length, with a couple of steel springs soldered on, which fit into the hood. At the other end of the tube there is a worm, so that it can be used also as an extension. The cost is small, and, although it is not collapsable, yet if put on the shoulder strap of the camera case it is always at hand."

LOCKYER AGAIN. Mr. J. E. Lockyer, of 244, Evelyn Street, Deptford, London, S.E., has lost no time in putting on the market a ready-made concentrated developer for the new Paget phosphate paper. It is made up strictly in accordance with the Paget formula, and only requires dilution for use. The developer, we can testify from our own experience, works excellently, and should appeal to many who do not want the trouble of mixing up a developer for themselves. It is sold complete, with a tin of acid hypo fixer for 6d., or in a larger size for 1s. 3d.

THE CAMERA AND COLOUR. "The camera was unsurpassed," said Dr. D'Arcy Power at the California Camera Club, "in its portrayal of texture, but it failed utterly in the endeavour to convey a true idea of colour contrast. Coloured photographs are inaccurate, on account of the colour being degraded by falling upon the silver of the photographic image. The toning processes have the advantage of colouring the image, not to represent the actual colours of nature, but to represent the colour contrasts by a correct balance, and by the juxtaposition of warm and cold tones.



REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post (and then only when they concern apparatus actually in the possession of the enquirer on approval), for which purpose a stamped addressed envelope must be enclosed.

NEW OUTFIT (Hull).—The Thornton-Pickard Co. make what you require.

SIGMA (Darlington).—As far as we have been able to asscertain, all three are identical.

RODINAL (Thame).—There is nothing wrong with it, as you can see for yourself by trial.

J. SHAW (Holloway, N.)—We are sorry that we are unable to answer you, but the only way to find out is by actual trial, and this you must do for yourself.

ACTRESS (Fulham).—The alteration you propose would probably not affect the definition appreciably, but the only way to find out would be to try it. We should not expect it, at any rate.

QUARTER-PLATE (Sheffield).—There is no rule for fixing the position, which is done by trial. If your sketch is correct, it is somewhere about right now. A little more or less does not matter.

E.J.B. (Walthamstow).—Yes; but if they were non-curling films it would be necessary to soak them in water first or they would stick to the glass and it might be very difficult to detach them

SEARCHER (Ilford).—We recognise the difficulty, but cannot use the space in the way you suggest. As announced a month ago, the "Index" is ready and can be obtained free by sending a stamped wrapper to our publishers.

F. B. WOODS (Maryborough).—We do not know where you could get it in small quantities unless you could persuade one of the makers to supply you with a little uncoated. It is not on the market except in wholesale quantities.

W. SINCLAIR (Hull).—The method is described at length on pages 98 and 99 of the "British Journal of Photography" for February 7th, 1908. Probably you could get a copy by applying to 24, Wellington Street, Strand, London, W.C. It would take too much room to describe here.

F. PHILLIPS (Wealdstone).—We cannot give you "a better formula," as if we had one we should have published it. The one we gave works perfectly in our hands. You may make up the bath, except the gold, with boiling water, and when cold decant it from any precipitate, and finally add the gold. This is a course some prefer. We should think that the prints were insufficiently washed before toning; as that is a frequent cause of troubles such as these. We have sent them back.

R. O. SHIPSIDE (Wolverhampton).—The paper should be an olive brown, and the printing carried on until the image is fairly visible. It requires about the same exposure as p.o.p. When put into water for some time the highlights gradually lighten. The process was fully described. "The Gum Bichromate Process," by J. Cruwys Richards, price 2s. 6d. nett, or post free from our publishers 2s. 9d., will give you all the information about it that you can want.

ERNEST (Lewes).—The exposure which is necessary when the screen is used prevents much work being done with a hand camera, unless the lens has a very large aperture, and then the focussing must be very accurate. Some reflex workers use a five times screen or thereabouts, with colour sensitive plates, and get very successful results. But unless the exposure is to be a full one it is better not to use a colour screen at all, and to be satisfied with the rendering which is given by an orthochromatic plate without a screen.

C. R. STOTT (Leeds) asks "which is the best way of stopping negatives from frilling." *A.*—The *best* way is to find out the cause and remove it. Plates of standard make do not frill nowadays unless (1) the developer is much too strong in alkali, (2) the solutions used are too warm, or (3) the different baths employed are at widely differing temperatures. A bath of formalin 1 part, water 20 parts, applied either before or after development, prevents frilling, but is certainly not to be recommended except in very hot climates, when it may be compulsory. The plate should be washed for five minutes under the tap after the formalin bath and before development, or after development and before the formalin, but need not be washed between the formalin **and the hypo.**

E.F. (Riding Mill).—The development factor is 20 or thereabouts.

V.G. (Churwell).—Sulphur is said to increase the sensitiveness of asphaltum to light.

MISS WILSON (Oxford).—The secretary is Mr. J. McIntosh, 35, Russell Square, London, W.C.

H. B. BACON (Ryde).—Thanks for the print of the double exposure. It is, as you say, very curious.

DR. NICHOLL (Milford Haven).—The balance of adantage seems, beyond question, to rest with the half-plate.

P. S. JOSHI (Bombay).—We are unable to criticise your priuts as the stamps sent are not available here.

BRITON (Edinburgh).—Your question cannot be answered in the form in which it is put, but if you treat them as having a speed of 14 you will be right.

N. P. SAMPAT (Karanja).—We only criticise by post, see above. You must send properly toned and fixed prints, those just to hand are too dark to see whether they were originally good or not.

A READER (Stratford).—The cause of the trouble is that the lens does not properly cover the plate. By stopping it down this is remedied. The definition, except for the extreme corners, seems to be good.

SWING BACK (Salisbury).—There is, perhaps, some slight advantage in the back swinging from the centre rather than from the bottom; but most modern designs have the latter, as it lends itself better to compactness.

G. S. ROBINSON (Cambridge).—There can be no doubt that such a list would be of great service to anyone buying a lens; but it would require a great deal of labour and care to compile properly. Certainly nothing of the kind is in existence.

PROJECTION (Bishop's Stortford).—There should be no need for ground glass in the carrier at all; but it is occasionally used in the way you propose, to reduce the light, which it does very greatly. We should advise you not to employ it.

DEVONA (Tiverton).—A great deal depends upon the exposure and development being exactly right; but the conditions are most favourable when an orthochromatic plate and either a five or a ten times screen made to suit it are employed. The developer used should be that which the plate maker recommends.

BLOCK (Dunfermline).—The book to get is "The Half Tone Process," by Verfasser, price 5s. nett, or post free 5s. 4d. A good deal of plant is needed and a good deal of skill. We should think you would be money in pocket, to say nothing of time and worry, were you to go to a firm of blockmakers for what you want.

T. POWER (Wolverhampton).—The term p.o.p. is applied to both gelatino-chloride and collodio-chloride paper; but it is more usual to term the latter "collodio-chloride." One can hardly go by the meaning of the name, as there are "printing-out papers" which are never spoken of as p.o.p. Self-toning papers are certainly a form of p.o.p.

W. H'POOL (Hartlepool).—Three thicknesses of black merino form a suitable material for a changing bag. Three distinct bags should be made, fitted one inside the other, and then stitched along the wrist holes only, that no needle hole should pass right through them at the bag proper. A "floor" area of about 15 by 11 inches is a convenient size for quarter-plate if that is what you have.

FIXUM (Sheffield).—We cannot, of course, say what it is which your chemist is supplying, but a satisfactory toning and fixing bath for Paget P.O.P. can be made to the following formula:

Hypo	5 ounces
Citric acid	60 grains
Lead acetate	60 grains
Ammonium sulphocyanide	½ ounce
Hot water	20 ounces

Boil the mixture and let it go cold, decant the clear liquid from any sediment and add three grains of gold chloride dissolved in a little water.

NINA (Newcastle).—The letter has been forwarded as requested.

OPEN AIR STUDIO (Newburn).—Please put a specific question and we will try and help you. But "how to set about it" is much too vague.

T. BURT (Coalville).—We must refer you to our advertising columns. There is no one "best," but a number are first rate.

ANXIOUS (Wolverton).—Yes, it is quite satisfactory, and is still on the market. Marion and Co., 23, Soho Square, London, W.C., supply it.

NOVICE (Darlington).—You could get such a course of lessons from Mr. John H. Gear, 8, Nottingham Terrace, Regent's Park, London, N.W.

BEGINNER (Darlington).—It is cheaper to mix them up yourself from the chemicals, the others are more expensive. But it is no "better" to do so. The result is the same either way.

W. J. RICHARDS (Oswestry).—The cause of the spots is some form of chemical dirt, but what the particular chemical is we are unable to say. Metal of some kind it is quite possible.

C.A. (St. Leonards).—The Minister of Fine Arts, Paris, grants permission to photograph in the interior of French cathedrals; in Belgium permission can generally be obtained on the spot.

STIGMATIC (Newbury).—The spots are caused by particles of undissolved developer; as is shown by their comet-like shape. The only remedy now is to spot them out very carefully on the print.

REFLEX (New Southgate).—Both are in the very front rank, and we could not say that one is any better than the other. It is news to us that one is twice as fast as the other, which is what your letter implies.

ANXIOUS (Bolton).—It looks as if for the nearer objects the plate is not far enough from the lens. Do you focus it, or is the camera one of fixed focus? If the latter, you must either use a small stop or fit the lens with a "portrait" magnifier.

R. C. PEARSON (Portsmouth).—A rapid rectilinear is what we should advise. There is no one book which defines all those words, many are only trade names, but "The Hand Camera," by Wastell and Bayley, price 1s. nett, or post free 1s. 2d. should help you.

G. BRADLEY (Greenwich).—It is standpoint not lens that is at fault. Get as far from the stone as you conveniently can, and then use the whole lens or one of the halves to give you the size of picture you require. That is the proper course to pursue. If the 13in. lens can be used all the better.

A. T. BETTERIDGE (Dartford).—We cannot reply to you better than by saying that you will be near enough correct if you take the time required by the paper to darken just perceptibly to be one-sixteenth the time it takes to get to the full tint. If you apply this to your question it should tell you what you want to know.

H. STONE (Leicester).—The cause of the spots is chemical impurity of some kind. The nature of the impurity we do not know; but if you are using washing soda it is not unlikely that that is the source of it. Crystallised sodium carbonate, pure enough for photographic purposes, can be obtained for very few pence the pound.

T.S.H. (Chippenham).—It is quite clear that you have got hold of a very old batch, as the backing that is now supplied is much more soluble. We can only suggest that you give the negatives a long soaking and then apply a stiff nail brush. If you do not wish to leave the films wet for a considerable time, the plates might be laid flat upon wet blotting paper for a few hours, and then, after a short complete immersion scrubbed.

CARRICK (Belfast).—First photograph it, getting as good a result as you possibly can; it will probably photograph much better than it looks. This is a guarantee against injury in the after processes. Then detach it from its mount, using cold water and taking plenty of time, and immerse it for half an hour in a five per cent. solution of alum. Then wash it in several changes of water and intensify it with mercury and ammonia precisely as you would intensify a negative, then wash **and dry it.**



Beginners' Competition.

Open to all photographers who have never taken an award.

CLOSING DATE.—Tuesday, August 31st.

PRIZES.—First, a signed copy of "The Complete Photographer," a half-guinea work by Mr. Child Bayley, now in the third edition. Second, a free subscription to "Photography and Focus" for twelve months. One or more certificates of honourable mention will also be awarded.

Rules.

(1) Each competitor can send as many prints as he likes, but each print must bear on the back the coupon, published each week, the name and address of the sender, the title of the picture, and no other writing whatsoever.

(2) No print will be eligible that is larger than 5½in. × 3½in. (postcard size) or 5in. × 4in. Nor are mounted prints eligible.

(3) No handwork other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute, the editor shall have the right to call for the negative from which the entry purports to be a simple direct contact print.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce without payment, any of the prints sent in, winning or otherwise.

(6) All entries must be addressed "Beginners' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date at the very latest.

Advanced Workers' Print Competition.

PRIZES—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates of honourable mention.

Rules.

(1) All photographs must be sent addressed "Advanced Workers' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., postage paid, to reach there not later than the first post on the closing date, and must contain a stamped addressed envelope or label (*not loose stamps*) if they are to be returned.

(2) Each photograph must be mounted, but not framed. Prints in slip-in mounts are not eligible. Each must bear on the back the name and address of the sender and the title of the picture. No letters or other communications must be enclosed with the prints. Every print must bear attached to its mount a coupon for the competition of the month, which will be found in each issue of the paper.

(3) Each photograph must be the work of the competitor as regards selection and arrangement of the subject, exposure and development of the negative, and printing, development or toning, and mounting of the print.

(4) The prints which are accompanied by stamped envelopes or labels will be criticised by post, and the editor shall have the right to reproduce any of the prints, winning or otherwise. The awards will be made a fortnight after the closing date.

(5) Awards may be increased or withheld at the absolute discretion of the judge, and in all cases of dispute the decision of the editor will be final.

(6) There is no restriction as to the eligibility, except as set forth in these rules, and except that the same negative must not be used more than once in the competition. That is to say, that a print from it once submitted, all further prints however varied, are ineligible.

(7) Neither editor nor publishers of *Photography and Focus* shall be held in any way responsible for the safety of prints or for their return to the competitors.

(8) The sending of a print to the competition will be regarded as a declaration to the effect that it is eligible under these rules, and that the competitor agrees thereto.

CLOSING DATE.—Tuesday, August 31st.

Special Subject Competitions. Open to all Readers.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates.

Rules.

(1) The subject of each photograph must be that announced for the particular competition.

(2) Each competitor can send as many prints as he likes, but each print must bear on the back the name and address of the sender, the title of the picture, and no other writing whatsoever. Each print must bear a coupon for the month, which will be found in each issue of the paper.

(3) No print must be mounted. No hand work other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute, the editor shall have the right to call for the original negative from which the entry purports to be a simple direct contact print. Enlargements are not eligible.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce, without payment, any of the prints sent in.

(6) All entries must be addressed "Special Subject Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date.

SUBJECTS AND CLOSING DATES.

A Summer Landscape. Closes August 31st.

A Harvest Scene. Closes September 30th.

Woodland and Water. Closes October 30th.

An Indoor Portrait. Closes November 30th.

TO READERS ABROAD.—In the case of competitors abroad, the rule as to the date of coupons is relaxed sufficiently to allow them to compete.

The Cure of Distortion.

By Ernest Green. Special to "Photography and Focus."

A RISING front, it is generally agreed, is the most useful movement which a hand camera can possess, since in a very large proportion of cases the great bulk of what we wish to include in our picture lies above the level of the camera.

It may not be generally realised that when the lens is opposite the centre of the plate, and the camera is quite level, everything which is higher than the height of the lens from the ground will fall below a horizontal line drawn across the middle of the plate. Now in the case of a building which we may wish to photograph from the ground in front of it, with the camera, say, four feet from the ground, it may very well happen that nineteen-twentieths of the building will be above the level of the camera, and so unless the front is raised will have to be included on one half of the plate, or, as is more likely, will be in great part crowded out. So frequently do such occasions arise that it has been suggested that if a hand camera cannot be fitted with a rising front, it is better that it should have its lens permanently fixed above the centre of the plate, as it is more frequently required in this position than central.

Even when the camera has a rising front, it will sometimes be found that when raised to its full height all that is wanted in the picture cannot be got, provided the camera is kept level. In landscape work this is easily settled, and the camera is simply tipped up until the photographer gets what he wants, but a great many workers hesitate before tipping the camera in the case of an architectural subject, since they have been told so often that this leads to distortion, unless the back is swung at the same time. Comparatively few hand cameras are fitted with a swing back, and even those that are so provided cannot always be used with the back swung just when required, since to do so necessitates the use of a small stop to get both top and bottom of the plate sharp at the same time.



In circumstances such as these there are photographers who, if they found they had not a swing back, or could not use it on account of the stopping down it entailed, would leave the subject altogether; but this would be a mistake, as the distortion entailed by tipping is very easily remedied subsequently. The two illustrations herewith will serve to show this.

The terrace on which are these graceful arches is that of the well-known Villa Arconati, overlooking the lake of Como. Owing to the height of the arches and the nearness of the parapet to them, it is almost impossible to get them at all with most forms of hand camera. Even when the rising front is used to its fullest extent, the picture only just includes the springing of the groining, and the tops of the arches are cut off. It therefore becomes a case of tip or nothing. The result obtained when the camera is tipped up is shown in the left-hand illustration.

The distortion here is very marked, and in its present condition the picture might be looked upon as a failure. But the remedy is a simple one, and the other illustration serves to show how effective it is. In this the columns will be found no longer to be converging at the top, but to have become strictly parallel.

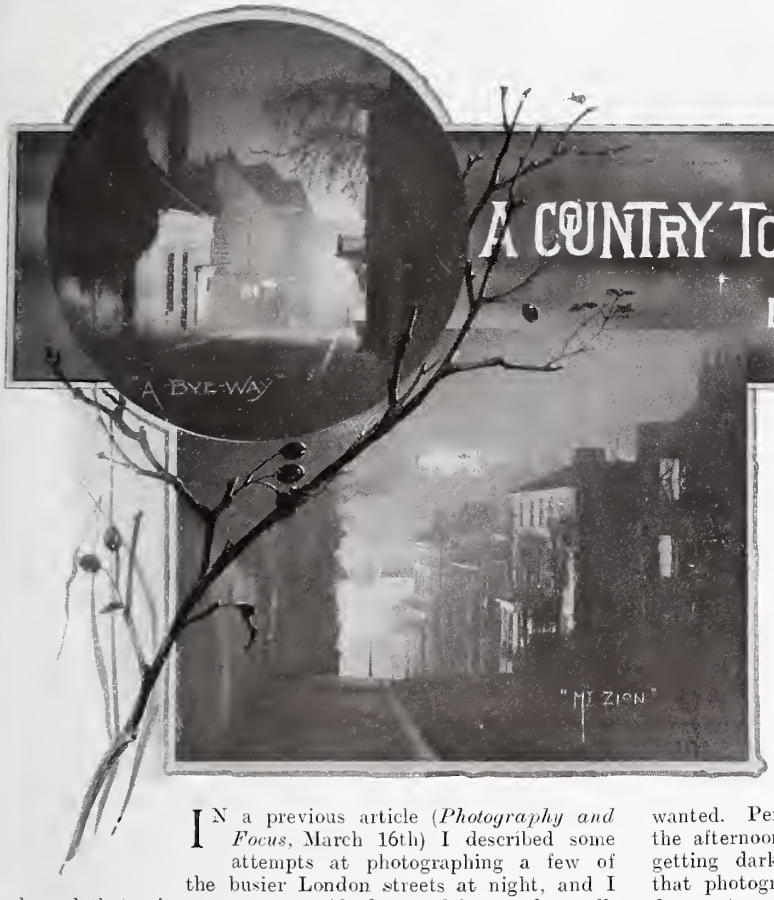
To accomplish this, all that has to be done is to swing the negative or the bromide paper, or, better still, both, when the enlargement is being made, until the distortion which is thus introduced exactly balances that which we wish to cure.

It is not always easy to see on the screen when the tilting has accomplished what we have in view, as the light may not be very powerful, and the negative dense or without any well-defined lines to guide us. In such a case, it is best to draw upon it two pencil lines, one on each side, just outside the scope of what is to show in the final picture. Then with a sharp knife and a straightedge two cuts are made along these lines, right through the film. These will show on the screen as bright lines of light, and the tilting may then be adjusted until the two ends of these lines are exactly equidistant.



If the negative is to be used for slide making, the procedure is just the same. If it is wanted, not for enlarging, but for contact printing, a duplicate negative must be made. This is done by making a transparency from the negative, and then making a second negative from that. Either the transparency or the second negative may be made by contact; but one of the two must be made either in the enlarger or in the camera, to afford an opportunity for tilting.

A comparatively small stop will be required. In the example reproduced on this page, the lens was hardly stopped down quite enough, and so there is a slight falling off in definition at the top. This was thought at the time to be comparatively unimportant; but had the picture been required to be critically sharp all over, it could have been got so by stopping down a trifle more.



A COUNTRY TOWN BY NIGHT.

BY H. WILD
Special to "Photography & Focus"

IN a previous article (*Photography and Focus*, March 16th) I described some attempts at photographing a few of the busier London streets at night, and I showed that, given an extra rapid plate and lens and a well-lit subject, it was possible so to cut down the exposure that moving figures and vehicles might be included.

Whatever success I may have achieved from a pictorial standpoint, I can at any rate claim that my prints had not that "city of the dead" look so common to most night photographs taken in towns. In this article I want to consider the possibilities of a country town for after dark work; and though, of course, one cannot expect the "infinite variety" of London, plenty can be found to do in most towns of any size.

The particular town illustrated is Tunbridge Wells, but I think my remarks will be found to apply equally well to any fair-sized town. The work does not differ greatly in its main points from that done in London, but there are one or two practical differences that are sure to strike the photographer. They are in the main due to the difference in the habits and customs of the provincial as compared with the Londoner. The latter is generally in a hurry, and the former is not; and one of the most noticeable differences between London and provincial streets is the way the country people stand about in the road. Go down almost any of the "shop streets" in Tunbridge Wells after 8 p.m., and you will find the roadway a good deal more crowded than the pavements, and the passing of a vehicle creates quite a commotion.

This preponderance of the pedestrian over the wheeled traffic makes night photography easier, in allowing of longer exposures; but against this must be put the lower intensity of the light available. True, with the spread of high pressure gas and the more powerful electric lights the country towns are rapidly improving their lighting, but it is as yet extremely rare to get the amount of light one finds in the more brilliantly lit parts of London. In the country also we must depend for our lighting mostly upon the shops, etc., and not so much on the street lamps.

Another advantage in favour of the country town is that there is more work for the ordinary lens working at f/8 or f/11; most London streets look unnatural without people, but this is not so with the streets of a country town, because they may be often seen in that condition. Even the High Street and busier parts may be seen quite deserted on a wet night or after about 11 p.m.

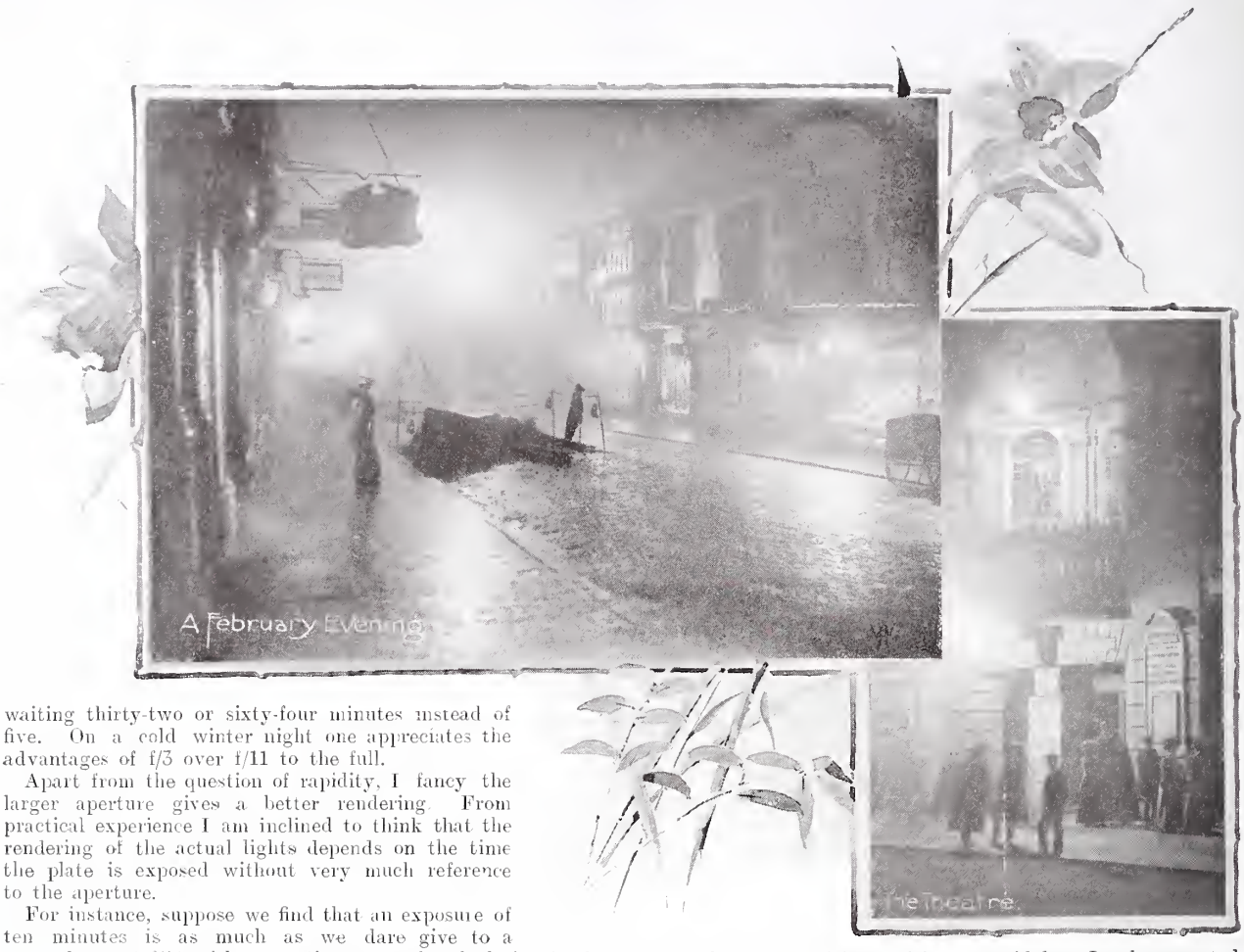
There is yet another advantage, but that is only to the dweller in the town, and that is of being on the spot. This is such a great one that it compensates for many drawbacks, for though there may not be the architecture or light of London, there is the chance of seizing transient atmospheric effects and accidents of lighting. I have often taken a special journey up to London because the weather seemed to promise the sort of evening I wanted. Perhaps I wanted drizzle, and it has commenced in the afternoon. Ten to one when I arrive in town and it is getting dark, it will either dry up or come down so hard that photography is impossible. With one's own town this does not so often happen, for it is generally only a matter of minutes to get to the subject, and even if the weather should change in that time and one does not expose any plates, there is only a little time and trouble gone.

It is really wonderful how different the same subject may look under varying atmospheric conditions. A misty night will merge into a hazy glow the lights that on a clear one might be very "spotty" and irritating; and the presence or absence of a moon may cause the skyline either to tell dark against the sky or to fade imperceptibly into it. Then amongst the other "accidents" to be reckoned with is the matter of lighted windows in private houses. Often a well-placed window will give just that feeling of human presence necessary to make a success of the picture. The two lit-up windows on the right of the "Mt. Zion" (above) show how useful they may be.

This print has another rather interesting feature, and that is the rendering of the large building in the distance. The exposure was made on a fairly misty night, and the building was *quite invisible to the eye*. In the course of a five minutes exposure, however, the cumulative action of the very faint light had impressed a well-defined image on the plate. We hear of stars too faint to be distinguished by the telescope being photographed by this same cumulative action; but this particular negative brought home to me this difference between the eye and the lens and plate more emphatically than any number of astronomical photographs.

One star looks much like another to the lay mind, but to see appear on the negative a large object that was invisible when making the exposure is almost a startling experience.

The lens used for this picture was the Dallmeyer 2B at f/3, and practically the whole of the lighting of the subject was from the street lamp shown (electric glow) and an arc light just out of sight at the bottom of the hill. Not a great amount of light all told, yet the negative was fully exposed in five minutes. This is a subject that could be taken with an f/8 or f/11 lens quite well, but it would mean



waiting thirty-two or sixty-four minutes instead of five. On a cold winter night one appreciates the advantages of f/3 over f/11 to the full.

Apart from the question of rapidity, I fancy the larger aperture gives a better rendering. From practical experience I am inclined to think that the rendering of the actual lights depends on the time the plate is exposed without very much reference to the aperture.

For instance, suppose we find that an exposure of ten minutes is as much as we dare give to a street lamp at f/11 without getting reversal, calculating in the ordinary way one would expect to be able to give five minutes at f/8 or twenty minutes at f/16, but in practice it will be found that nearly ten minutes could be given at f/8 and very little more than that at f/16.

This apparent suspension of an accepted law is a most providential one for the night photographer, for it means that to obtain detail in both shadows and lights it is only necessary to use a lens of such rapidity that the darker parts of the subject are sufficiently exposed before the high lights are reversed.

Work with Extemporised Tools.

"A Bye-way" is another of those subjects that could be taken with any lens; but it is interesting as being an example of what can be done with extemporised tools. It is not every photographer who possesses a portrait lens or feels inclined to buy one, even though he may wish to do after-dark work. It struck me that there was an easy way of increasing the aperture of any given lens by shortening its focus. This is done unknowingly by thousands of fixed focus camera users when they use a W.A. (or copying) magnifier, but somehow it does not seem to have occurred to any of them (or at least I have not heard it mentioned) that they had a very useful power under their hands. "The Bye-way" was taken with an Aldis 5¾in. lens with a Griffin wide-angle magnifier slipped on behind it. This reduced the focus to about 4in., so that as the full aperture of the Aldis was f/6, the full aperture of the lens and magnifier combined was about f/4.3, making it, roughly speaking, twice as rapid.

I suppose the reason this application of the magnifier has been overlooked is that the makers always recommend stopping down when using those that shorten the focus of the lens (W.A., copying, etc.) When I first thought of using this means of improvising a rapid lens I only expected to be able to cover a small plate. Taking a quarter-plate lens, I thought I might get an area of fair definition of about 2in. × 1in., perhaps, but to my surprise I found I could cover the whole of the quarter-plate and even allow for a little rise of front. The definition certainly does fall off towards the edges, but in most subjects it is quite sharp enough for pictorial purposes.

I find, however, that not all lenses will condescend to be altered in this way. The Goerz Dagor, for instance, does not hold up at all well. I imagine the comparative simplicity of the optical formula of the Aldis is the reason it stands interfering with so well.

"A February Evening" was also taken with the Aldis and magnifier, but in this case I improved on the original idea by finding a lens belonging to a combination set, that with a little adapting fitted *inside* the Aldis close up to the diaphragm. This shortened the focus a little more, and so gave me a lens working a shade faster than f/4. The exposure given was only a few seconds, and it will be seen I have been able to catch at least one figure. This figure seems to me to be pictorially most important; it emphasises the emptiness of the wet street, and adds considerably to the "atmosphere" of the picture. This was one of those evenings when the air seemed full of wet without actually raining, and the more distant lights had the appearance of patches of luminous mist—an effect I have tried to keep in the print.

The Limit in Combining Lenses.

I have found this combined lens most useful in places where the Dallmeyer would not take in enough subject. It gives me, in fact, a very rapid wide-angle lens, and brings

many otherwise impossible subjects within reach. In making up a rapid lens in this way, it is not advisable to shorten the original focus more than about one-third. For instance, it does not do to make a 6in. lens a shorter focus than 4in., otherwise the definition may go to pieces. Different lenses no doubt behave differently in this respect, but the more the original focus is altered the more risk there is of poor definition.

It may be useful to recall the formula for combining lenses. It is: Multiply the focal lengths together, and divide by the focal lengths added together. To take a definite example, suppose we have a 6in. rectilinear or anastigmat, and add to it a 15in. single lens, $15 \times 6 = 90$, and $15 + 6 = 21$. 90 divided by 21 gives us $4\frac{6}{21}$in., or near enough for 4.3in., which will be the focal length of the combination, and, if the 6in. lens worked at f/6 (*i.e.*, one-sixth of the focal length, or 1in. diameter), it follows that as the aperture still remains 1in. and the focus is shortened to 4.3in., the aperture becomes f/4.3.

As I pointed out in my previous article, moving figures at a distance will bear a fairly long exposure without becoming impossibly blurred, and it will be found that the nearer figures almost automatically sort themselves out. Let us suppose it is decided to give a subject such as this about five seconds. The principal figures remain still enough during this time, but immediately the cap is taken off a man makes his appearance from one side and walks right across the field of view. At first one would imagine the negative to be hopelessly spoilt, but it will be found that, provided the man walked right across without stopping, he automatically effaced himself, and leaves no trace at all on the plate. Should he, however, have paused for an instant, there will be a faint ghostly image on the negative, but if the picture is in other respects satisfactory it is generally fairly easy to retouch the ghost out.

"The Theatre" was taken with the 2B. It had between one and two seconds, and wanted a great deal more waiting to get the period of least movement. The lighting here is from the two high pressure gas lamps shown. These lamps are far in front of the electric arc in intensity, and as they are being very much used for shops they are making it possible to include moving figures in subjects that before would have required some minutes' exposure. A great deal of the charm of working in one's own town consists of the ever-changing effects of light due to what may be considered almost accidents. A shop changes hands, and the new tenant installs some high power lamps; at once we have a different lighting and a chance of a fresh subject. An extra street lamp may also quite alter the aspect of a street, sometimes making and sometimes marring it, and I have often found an unexpected picture in quite a well-known and hitherto barren place because a street lamp has accidentally gone out. It is these accidents, if one may call them so, that keep the interest up and prevent a place from getting stale, for one may work in quite a small town for many years and yet not exhaust its possibilities of picture-making.

The negatives from which the prints reproduced were made are with one exception on Imperial special sensitive ortho. plates, and have been developed with the hot developer, as described in *Photography and Focus*, March 16th. The exception is "The Hill," which is on a Wratten and Wainwright Panchromatic.



Supplication. *By George Anderson*

Copying Pen and Ink Drawings, etc.

How to make an ordinary plate give strong contrasts : the copying of etchings and engravings : illustrations printed on both sides.

THE copying of a photograph necessitates the production of a negative rich in gradation, but when the subject is a pen and ink drawing the circumstances are different. In this case there is no gradation or half-tone in the subject, which consists simply of black and white, and the character of negative required is therefore quite different. Mr. W. S. Davis in the "Photo Era" has some useful hints on the subject, from which, in what follows, we are quoting. The gradation of light and shade in the picture is produced by the thickness of and degree of separation between the pure black lines, and not by any change in depth of tone; and the object is to produce a negative with clear, transparent lines upon an opaque ground. It is, therefore, necessary to take particular care in focussing to have the lines absolutely sharp, to avoid any veiling by diffusion of definition, and to use a plate and developer which will give the required contrast.



A Cheery Old Soul. *By T. Mundy.*

If much work is to be done process plates are recommended; but where this is not the case, slow backed, or non-halation plates can be used successfully in their place; or if even these are not at hand, a slow plate which will work with great clearness may be evolved by immersing (in a dark room, of course) any fast plate for two minutes in a one per cent. solution of potassium bichromate, rendered acid with a few drops of hydrochloric acid, afterwards washing in several changes of water, when it may be exposed either before or after drying. This plate will require fifteen to twenty times the regular exposure; but as it is almost impossible to fog a bichromated plate through over-exposure, one need not be afraid to expose too long, of course within reasonable limits.

Whatever kind of plate is used, enough exposure must be given to obtain sufficient density in development to make an opaque ground in the negative. Development must be thorough to secure the necessary opacity. Should the lines appear veiled and grayish after the negative is fixed, they should be cleared by immersing the plate in a fresh hypo solution, to which has been added a small quantity of saturated solution of potassium ferricyanide; but as this is a strong reducer, its action should be stopped as soon as the lines are cleared.

When it is desired to secure as close an imitation of wood or steel engravings as possible they should be treated as line-work; but in most cases it is better to treat them the same as a photograph or similar print, particularly when making a small copy of a large engraving, as the fine lines sometimes run together in a small reproduction, and if treated as line-work this would block up the shadows, producing a harsh result.

PRACTICAL NOTES ON PHOTOGRAPHIC LENSES

Special to "Photography & Focus"

The Aldis Anastigmat Trio and Duo Lenses.

SIMPLICITY of construction, so far as this is consistent with a high degree of perfection in definition and in the corrections generally, is the keynote of the Aldis Anastigmat. For this admirable lens consists of three glasses only, of which two are cemented together to form a single combination, so that there are in all only four reflecting surfaces. This lens, in spite of its simplicity, or we might almost say in consequence of it, gives the most perfect definition at f/6 over the whole of the plate for which it is made, while it allows the front to be freely raised. There is no "ghost" perceptible under the most trying conditions, distortion also is absent, and the angle included (80°) is large enough to allow the use by stopping down of a much larger plate if this is wanted. For hand camera work and for general photography the lens is admirably fitted, while the simplicity of its construction allows it to be sold at an extraordinarily low price; a 5¾in. lens, for example, covering a quarter-plate well at f/6, costs, in an iris mount, only £1 13s.

Owing to its construction, the single components of the Aldis Anastigmat cannot be used separately when a longer focus is required, but this drawback has been got over by the production of the Aldis "Trio" and "Duo" lenses. The "Duo" preceded the "Trio," but for convenience we prefer to place the "Trio" first, as it occupies an intermediate position between the unaltered anastigmat and the "Duo."



The "Trio" lens consists of two single lenses mounted in one cell. To use it, the front lens of the Aldis anastigmat is unscrewed, and the "Trio" screwed in its place. The result is that the focus of the lens is increased to one and a half times what it was originally, but the corrections are as perfect as before, and what is more, the covering power of the lens is increased also, the working aperture being proportionately decreased. To make this clear we will take the case of the Aldis Anastigmat Series II., No. 2, to which we have already referred. It has a focus of 5¾in., works at f/6, and covers a quarter-plate well. If its front lens is taken off, and a No. 2 Trio, costing £1 2s. 6d. is substituted, the lens will be found to have a focus of 8¾in., to work at f/9, and covers a half-plate well at full aperture.

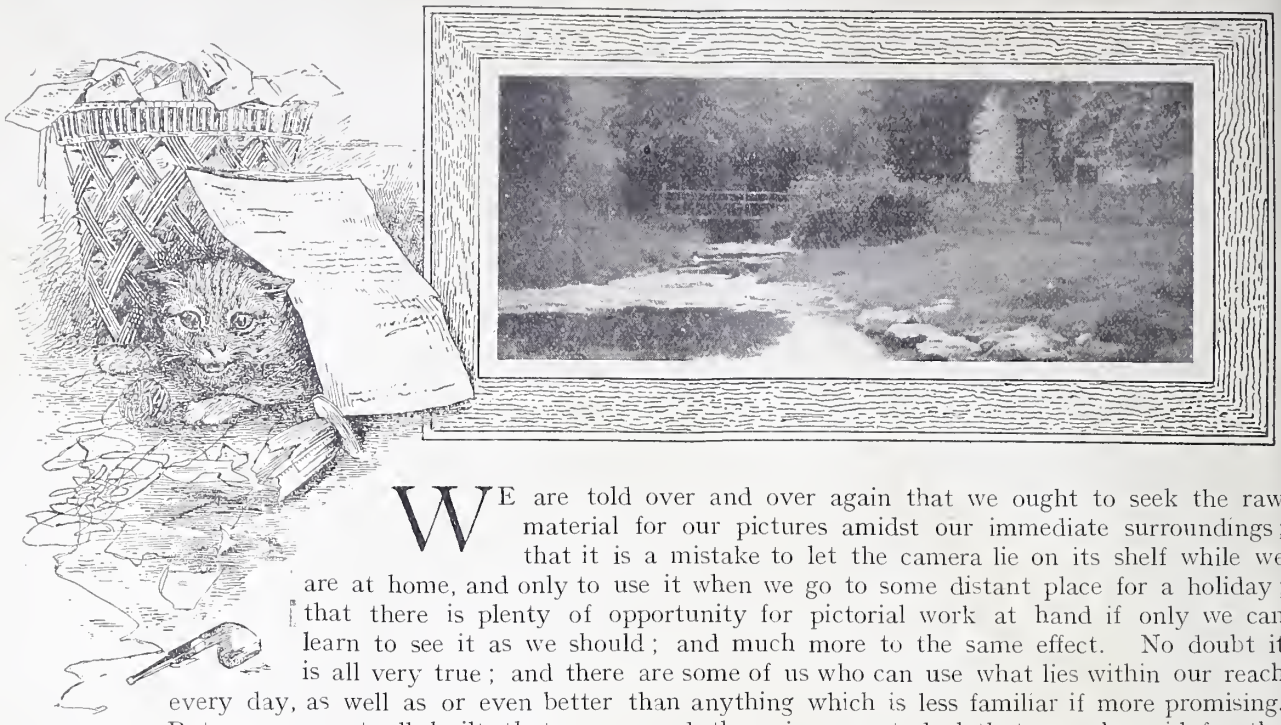
The "Duo" lens consists of three glasses, two cemented together, mounted in a single cell. It is used precisely as the "Trio" is used, but its effect is greater. If with the lens just referred to, we substituted a "Duo" instead of a "Trio" for the front lens, we should have as the result a fully corrected anastigmat of eleven and a half inches focus, working at f/12, and covering a whole plate with full aperture. The price of this particular "Duo" lens is £1 10s. 6d., so that all three combinations, each a fully corrected anastigmat, only cost £4 6s. all told.

Before concluding our account of a remarkable series of lenses, there are one or two minor matters to which we wish to refer, because in comfort and convenience of working these minor things stand for much. Messrs. Aldis for all their lenses have only three sizes of mounts, known respectively as *a*, *b*, and *c*; the threads on these are made to the sizes of the Royal Photographic Society's standards, *a* being the 1½in., *b* the 1¾in., and *c* the 2in. standard R.P.S. flange. All lenses in the *a* mount take the same size of flange, the same size of lens cap, and the same size of isochromatic screen, whether they are fitted with shutters or not. This systematization will be found very useful to those workers who use more than one lens, or camera, and is convenient when ordering a shutter, a cap, etc.

Another very practical point about the "Trio" and "Duo" lenses is that each is supplied with a brass cap into which the lens screws when not in use. We have had occasion more than once in the past to comment upon the very inadequate protection which is thought to be good enough by many makers for the most delicately constructed and beautifully adjusted optical instruments, when those optical instruments take the form of photographic lenses. Microscope objectives are sent out with a brass cap, as a matter of course, and a modern photographic lens is at least as worthy of that protection as the majority of microscope objectives, although it very seldom gets it.

The iris diaphragms of the Aldis lenses, it may be noted also, are not made of metal, but of xylonite, which has a beautiful dead black surface free from all risk of wearing bright. If the lens is to be used in a lantern, however, it should be ordered with a brass-leaf Iris, as the xylonite does not stand the heat.

The Aldis lenses are fully described in a little booklet, which also gives sizes and prices, particulars of their "Oxys" anastigmat, and hints on the care of lenses. It is one that should be sent for and studied by all interested in lenses, and can be obtained by sending a postcard to the makers, Messrs. Aldis Bros., Old Grange Road, Sparkhill, Birmingham.



WE are told over and over again that we ought to seek the raw material for our pictures amidst our immediate surroundings; that it is a mistake to let the camera lie on its shelf while we are at home, and only to use it when we go to some distant place for a holiday; that there is plenty of opportunity for pictorial work at hand if only we can learn to see it as we should; and much more to the same effect. No doubt it is all very true; and there are some of us who can use what lies within our reach every day, as well as or even better than anything which is less familiar if more promising. But we are not all built that way; and there is a great deal that may be said for the photographer who finds his inspiration in scenes to which he is unaccustomed, in distant or foreign places which he only visits perhaps once in a lifetime. The fact is, do what we will, we cannot help getting familiarised so much with our surroundings that we overlook a great deal in them which appeals strongly and directly to the stranger who sees it for the first time. Take the London streets and the London atmosphere, as a case in point. The Londoner uses them more as materials for curses than materials for pictures. Some of the best pictures of London have been done by a worker from Lancashire, and the striking Metropolitan photographs which linger in the memory of the exhibition visitor are mostly by American and French photographers.

So that there is something to be said for the average amateur's practice after all. The writer would go even further. As it is the first impression which is so useful, we ought to make a point of being ready to secure it; and whenever we go to a fresh place, instead of having a look round first to see if it is worth while taking a camera, to take the camera on that first visit also. Certainly, if not only pictures but holiday mementoes are to be obtained, the first impressions are everything. The little points which strike one first as strange are the very things which will interest others; and in a day or two, even in an hour or two, one may have become so used to them as to take them more or less as a matter of course. The thing is never to be without the camera, whenever photography seems in any way possible; and never to put off until later what there is the opportunity of doing at the moment.—G. H. P.

Variations of the Bromide Process.

By Fergus O'Neill. Special to "Photography and Focus."

THE ease with which enlargements of almost any size can be made on bromide paper from small negatives, and the wide range of papers and of colours to be obtained on them by toning the developed prints, are two very good reasons for the present-day popularity of bromide paper. The following variations from the plain straightforward printing or enlarging have been successfully used by the writer, and are here passed on for the benefit of other readers of *Photography and Focus.*

Altering the Surface.

The matt and very rough surface bromide paper is very suitable for many subjects, but at times something different is wanted. A canvas grain is most effective, and is easily given to the print in the mounting process. The card first has a piece of canvas mounted upon it with glue, and the print is then mounted upon the canvas with ordinary starch paste, being allowed to get fairly limp before applying it to the canvas. It is covered with three or four pieces of clean blotting paper, and is tightly screwed up in a copying press and left to get thoroughly dry. When dry, the grain of the canvas will be found to be faithfully repeated on the surface of the print.

A thin matt bromide paper is most suitable for this treatment, and it is well to give it a formaline or alum bath before the print is put up to dry preparatory to mounting.

Waxed paper has been suggested, instead of blotting paper, as being less liable to stick to the face of the print; but if any sticking does occur, it is easier to remove the blotting paper than waxed paper, by the application of a very little water with a small brush.

If ordinary canvas gives too coarse a grain for the particular prints that are to be dealt with, fine open muslin or butter cloth may be substituted. It will not do to put the canvas or muslin on the top of the print and press it in, as this only gives a cast or reverse of the grain, the threads forming depressions instead of standing up in relief as they do on the canvas, and this effect is not in the least suggestive of the surface of canvas itself.

Another variation can be got by interposing a piece of the muslin between the negative and the paper when making the print. This breaks the image up into a series of dots which at times has a very agreeable effect, very much like that obtained with bolting silk, but coarser, and more suitable for big enlargements, on which the very fine grain of the bolting silk would be lost altogether. It should be noted that the presence of the muslin necessitates an increase in the exposure. The fabric for the purpose should be carefully selected, and when a good piece is obtained it should be kept for that purpose and taken care of, as any little irregularity in its grain will be found to become very assertive on the print.

Another very effective modification of the surface of a bromide print can be carried out after mounting by screwing it up in the letter-copying press, with a piece of glass-paper or sandpaper face downwards upon it. A piece of smooth, stiff cardboard should be placed behind the sandpaper, and the operation carried out directly after the print is mounted, and while there is still a little moisture from the mountant in it, as the presence of a very slight dampness—not enough, of course, to make the print stick to the sandpaper—causes it to take the impression better. A fairly coarse grade of sandpaper is the better for the purpose.

If the print is made on smooth matt paper with a broad white margin, an agreeable variation may be carried out by cutting the sandpaper to the exact size of the print itself, and adjusting it carefully on the picture, leaving the white margin with its natural surface. Other variations will no doubt suggest themselves to those who try one or other of these devices.

The letter copying press, although a great convenience, is not an absolute essential; and a very fair substitute is to be found in the domestic wringer. The pressure must be carefully adjusted so as to be equal on the two sides, and the prints, if necessary, put through more than once, taking care not to shift the sandpaper between the passages. These methods are adaptable equally well to bromide and to gaslight prints; but the rough surfaces they impart are seldom an improvement in the case of P.O.P.

Green Tones on Bromide Prints.

The uranium toning method is well known, but it may not be so generally known that a print toned to a red brown



Clear Glass. *By John Maddison R.D.S*

with uranium may be converted into one of a pleasant blue-green merely by immersing it for a few seconds in a weak solution of iron perchloride. The print for this process should be one which has not been under-exposed in any way, and should have development stopped a little sooner than if it is to be left untoned. It is thoroughly fixed and washed, and is then placed in the usual toning bath of uranium, until the deepest shadows have toned to a good brown. It has then only to be washed in half a dozen changes of water, which should be very slightly acidulated with acetic acid and dried. If the washing is too prolonged, or if the water is not made faintly acid with acetic acid, the toning will be found to wash away, as it is soluble in water, and in time may be entirely removed, leaving the plain black print.

The uranium bath I use is made by dissolving fifty grains of uranium nitrate in five ounces of water, and fifty grains of potassium ferricyanide in another five ounces. Twenty minims of glacial acetic acid are then added to each solution, and the two are mixed together for use. The print may be soaked in cold water for a minute or two before being put into the toning solution, and the washing afterwards carried out with water, to each quart of which two drams of acetic acid have been added. The last two or three changes may be in plain water.

Prints toned in this way and dried are placed direct into a solution composed of two grains of perchloride of iron to the ounce of water; and as soon as the desired tone is reached, are then washed and dried. The process is one which has to be carried out very methodically if the prints are all to be of the same colour: but even if they are not very uniform in this respect, some of the tones obtained are very good.

Another toning process which answers equally well with both bromide and gaslight prints is the Ferguson method. Three ten per cent. solutions of copper sulphate, potassium citrate, and potassium ferricyanide respectively, are required. A dram of the copper sulphate solution is added to ten drams of the potassium citrate solution, and then a dram of the ferricyanide is added. If the solution is then not quite clear a little more citrate will make it so.

A very short immersion in this bath will give to the prints a very rich warm black colour, while when the action is prolonged, they will be converted to brown, and eventually to red; but the earlier stages seem to give the best tones.

Framing Prints without Glass.

There is no need to glaze a bromide enlargement; in fact, a richer effect can be got without putting any glass in the frame, if the print is treated in the following way: A thin board is planed quite smooth, and the enlargement is carefully glued down to it, and allowed to get thoroughly dry. It is then given a couple of coats of ordinary oak varnish, and is finally cut to the required size, and inserted in the frame. This method is most suitable for sulphide-toned bromide prints, to which it gives great depth and transparency in the shadows. The prints, after being treated in this way, should they at any time become soiled, may be be sponged down with water, without fear of injury.



Early Morning, George Street, Edinburgh. *By A. W Walburn.*



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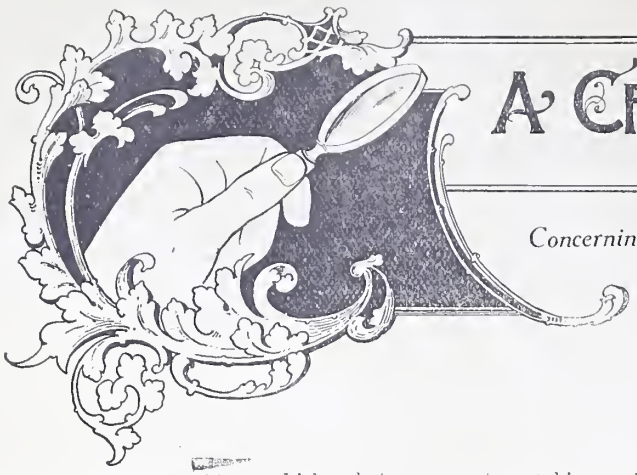
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A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

IF there is one thing which photography ought to do supremely well it is the seizing of the fleeting incident—what we call the snap-shot, in short. However highly trained is the draughtsman, however swift his pencil, he cannot possibly compete with the plate which catches and indelibly records every item of a changing scene in a hundredth of a second.

I thought of this as I examined a print entitled "The King going to open Parliament." It is a type of snap which does not commonly find its way into the beginners' competitions, and perhaps for this reason arrested my attention. Intrinsically, it is not so good as many a professional press picture of the same scene, but—being myself a photographer—I am ready to acknowledge its (comparative) excellence, having so often, in my own early days, failed to do half so well with similar material.

Nevertheless, admitting that this is good, and that nothing much better could have been got from this standpoint and at this particular instant of time (obviously the only instant of time at the photographer's disposal!), it strikes me, looking at this print, that it illustrates rather the failure of photography to render a human being's impression than its success.



The King going to open Parliament. *By H. T. Heel.*

How would the draughtsman have treated this? To begin with, clearly he would have made the King as far as possible the chief point of interest. This is the King going to open Parliament, not his coach and footmen going to open Parliament. But photography—so horridly literal—hardly shows His Majesty at all. Every eye in the crowd must have been fixed on that figure behind the glass, but the camera obstinately insists that it was indistinct and was turning away at the precise moment when it passed a given stage in the route. Instead of showing us the King, the camera shows us the curly-wurlies of his vehicle's decoration and the strut of the white calves of his attendants.

I must leave the reader to draw the moral, for I have already wasted too much space over this one picture. At any rate, it seems to me that for the amateur the simpler his subject the better, whether instantaneous or otherwise. Try to get what the eye sees—no more, no less—or your snap will tend to be a record not of your own impression, but of the lens's.

Compare, for example, this alleged picture of the King with that entitled "The Little Fisher Maid." Is there any doubt, in the latter, as to what is the chief object? Is there any distracting detail? Not a bit. Yet the fisher maid is as true a snap as is the other print—truer, in a sense. Perhaps it has as little pictorial claim as the royal procession picture. But pictorialism quite apart, the one is true and the other largely untrue. The fisher maid picture is an absolute record of an absolute momentary occurrence or impression: the procession picture is a record of, on the one hand, far more than human eye could observe, and, on the other, of the omission of precisely the item which the human eye—if it saw nothing else—would infallibly have noted.

A funny example of the literalness of photography is seen in "A Worker" (reproduced on page 163. Here, the photographer has been so keen to be truthful that he has snapped his subject through a wiggly fence. Maybe this is what the eye saw: but if the eye happens to see under disadvantages, why register the fact?



The Little Fishermaid.

Is this "art"? I can't admit it. Is it, then, realism? I can't admit that either, for realism surely consists in the statement of essentials, not of non-essentials. The fence simply doesn't matter, as part of "the story." Had "The Worker" been a fierce tiger at the Zoo, and had the point of the picture been that the tiger was in captivity—title, say, "caged"—a foreground of bars might have been reasonable, if unbeautiful. But the fence is not reasonable. It is an intrusion, and an ugly one.

"Into the Valley" is a fine snap, and for anything I know to the contrary may have been taken looking over a stone wall or through a hole in a hedge.

But the author of this hasn't bothered to force on our notice the disadvantages under which he worked; he has made it his business to give us the vision, and nothing more. What could be better? If there is a factory chimney on the sky line, just out of the margin

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Eventide. *By Geo. Duncan.*

of his print, ought he to have included it because the eye couldn't help seeing it? No, because it would have been irrelevant; as irrelevant as the wiggly fence in "The Worker" or the smaller minutiæ of gilding on His Majesty's coach.

It is all very well to have a quick eye for impressions; but if you propose to register those impressions with the camera you must have a quick brain for translation—I mean, you must mentally translate the picture in front of you into its probable version on the plate, and see wherein the eye's observation will differ from that of the lens. This art of swift translation—mental—is one which the hand camera worker has to cultivate, and which, to the end of his life, he may never wholly have mastered. Did the author of "The Worker" genuinely know beforehand what his negative would look like, or did the author of "The King going to open Parliament"? I don't believe it. But the authors of "Into the Valley" and "The Fisher Maid" knew, or knew as nearly as it is possible to know. Why? Because they chose simple themes.

So did the author of the rather commonly titled "Eventide." The mist may have been a little exaggerated by the lens, but the general outlines of this subject are so simple that it must be almost precisely what the photographer saw, though this is plainly another "snap." And to get what you mean to get has always been the prime problem of snap-shot work.

To get something you never thought of, never noticed at the time you pressed the button, is no use at all, even if the thing the camera has revealed is perfectly lovely. For it is the camera's discovery, not yours. Now, provided you choose simple enough subjects, the camera can't make discoveries which you hadn't made. That is why I keep harping on the importance of trying to make simple impressions rather than complicated ones; and that is why "Eventide" is praiseworthy. It is unambitious, and that is its merit.

"The Foamy Stream deep roaring fa'as" is the title of a rather more complex impression; for here (if I may be allowed to guess the photographer's thoughts) there was an aural as well as a visual theme; and the aural one—the roar of the flood—is untranslatable, except by the imagination. Up to a certain point this picture is a success—more so than many not unsimilar river views which have passed through my



"The foamy stream deep-roaring fa'as." *By M. Curtis.*



Into the Valley. *By J. Herbert Saunders.*

hands. There is a glare and glitter in the water which has a sort of effectiveness; and though the thing has been snapped it has not been snapped so fast that the water looks frozen—a common mistake in, for instance, high speed pictures of breaking waves.

But there is a fault, though I find it hard to express it. At the risk of seeming unreasonable, I should surmise that this is an impression which photography cannot render at all. It is a continuous impression, in the photograph, whereas it was a momentary impression—or the impression of a few minutes or of an hour or so—to the human being. He came away, carrying an impression of audible roar and visible glitter—a long, loud, grandiose impression; but still one which (now that he is no longer at the river's brink) has ceased. Well, this photograph represents it as going on and on for ever.

The other photographs we have looked at represent impressions which we know are transient, and have ceased. Even in the pictures you can

Get a sample packet of "Vigorous Ensyna."

It is difficult to write of the "VIGOROUS ENSYNA" without an enthusiasm that almost suggests exaggeration. Nothing that can be said about the paper and its wonderful simplicity can give the amateur anything but the slightest idea of its merits.

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see they are about to cease, soon. But in this river scene the impression is unceasing, and is silent.

All of which is the vaguest theorising, and difficult to place convincingly on paper.

Thoughtful readers may perhaps like to reason out the point for themselves, and doubtless many of them will arrive at the conclusion that I am wrong. But carefully and ponderingly comparing "The Foamy Stream" and, say, "Into the Valley," you will, I am sure, end by perceiving that the former photograph lacks a something which the latter has got, though viewed simply as pure camera products there is very little to choose between them.

Mr. F. M. Sutcliffe on Photographing Buildings.

The best view point: grime on buildings: the landscape gardener and his efforts: glass.

AMONGST the photographic columns in the daily and weekly press there are some which are as dreary in manner as they are bare in information; and one viewing them can only wonder, as of the flies in amber, how they could have got there, how any editor could think that they add to the interest of his paper. The weekly article by Mr. Sutcliffe in the "Yorkshire Post" is a conspicuous exception both as to its contents and its style, in proof whereof we have "lifted" this week the following note by him on photographing buildings. What follows, then, is given in Mr. Sutcliffe's own words:

One of the most difficult tasks to photographers is to make a pictorial photograph of a building. There are many things which interfere with his success. Not only in towns, but in the country, buildings are crowded together in a stupid way; so much so that it is difficult to photograph one without including parts of others. Then our streets are, on the whole, very narrow, little better than the bridle paths wide enough for a string of pack horses, but no more. These narrow streets increase the photographer's difficulties. If he is to get the whole of his building on to his plate, and his employer generally wants the whole, he must use a wide angle lens, and in many cases work diagonally and get violent perspective.



A Worker. (*See p.* 161.) *By E. H. Dasent.*

Writers on this subject have laid down as one of the principal rules to be observed that it is not the thing to take a photograph of a building broadside on, or exactly from the centre of the front. The student is advised to plant his camera to one side, and so to get his lines in perspective. Now this advice should be taken with a grain of salt.

If it is possible to include two sides of a building by working at an angle, it is often wise to do so, but in street views where only the front of the building is usually visible, a point of view from opposite the centre or the main feature of the building is generally to be preferred. In street architecture one often finds a doorway or some important thing which would be dwarfed to insignificance if the camera was not placed opposite to it. If the photographer is working for love, and not for money, his chance of making a picture will be greater, for he will then be able to please himself how much of the building he includes—he may content himself with the doorway only, or he may only make a group of the chimneys.

The difficulties in towns are greater than those in the country, for not only is there the smoke and poor light to contend with, but there is the passer-by. Whether the town is a busy one or a sleepy one, this passer-by always has time to stop and stare at the camera. The only chance the photographer has of getting some views is to be astir before the loafer begins to loaf. Sometimes he may be able to mask his battery behind the friendly shelter of a passage, or get his picture from a window above the level of the street.

In large towns new buildings become grimy before they are finished. The photographer then should be ready with his camera as soon as the scaffolding is cleared away if he wishes to get his building at its best. In many towns there are buildings of great architectural merit which are unseen by the passer-by, because they have made themselves inconspicuous by absorbing every grain of soot which fell on them. This natural protection may be of great use to the fowls of the air and the beasts of the forest, but it is a great loss to mankind. It makes the life of the townsman more dreary than it otherwise would be. Local authorities, too, have helped the monotony by clearing away anything which they called an obstruction. Years ago many of our streets were broken up with porches and rooms which were built out over the pavements, to say nothing of smaller projections into the street. There is nothing now to stop a cannon ball from going from one end to the other, but all this bareness has made it bad for the eye of the passer-by, and bad for the hungry camera.

In the country it is sometimes possible to make a picture of a building, even if the building has no architectural beauty, by hiding it partly behind a tree or trees, but the photographer's work is often sorely let and hindered by the evil designs of the landscape gardener.

His geometrical beds make lines which lead to nowhere, and far outshine any beauty there may be in the house behind, which house the gardener may not even think worth considering as a background to his designs. Sometimes, if the photographer has a telephotographic lens, he may outwit the gardener by getting away from the gardens and getting his building from a distance. The hyacinths then seem very small compared with the house.

"Glass" is often a great nuisance to the photographer. Why architects allow these white elephants to rub shoulders with their creations is strange. Many a charming picture is spoilt by the ugly roof of a peach-house or tomato-house coming in the way. Glass houses are quite as much in the way as the family washing would be, for they make large areas of white which quite upset the harmony of any scene.

To photograph any building successfully the worker should not be in a hurry. Buildings are like people—they look their best on rare occasions. It is the business of the photographer to wait and watch for these.



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"The time has come, the Walrus said, to talk of many things."

I HAVE several times drawn attention to circulars and price lists issued by professional photographers, and the wording has often been so irresistibly seductive that I have marvelled how people can refrain from rushing off to be photographed, not only every day, but several times a day. It is surprising what an amount of high-grade professional genius is at our command, even as low as a shilling a dozen two positions proofs free carriage paid satisfaction guaranteed or money returned. But, although the claims of these professional photographers are so seductive, they all pale into absolute insignificance compared with those set forth in a leaflet that lies before me. True, it only contains six short paragraphs, but each one is a precious gem, and after I have drawn attention to them I feel sure that every other photographer will hide his diminished head.

* * *

"Photographs of Horses, Cattle, Sheep, Dogs, Cats, and all other Animals taken on the shortest possible notice. Also Railway Trains, Motor Cars, Carriages, Bassinettes, and Mail Carts, snapped at the rate of sixty miles an hour." It is pleasing to observe here the evidence of equality in the animal world. The notice demanded is the same whether the order comes from the modest mouse or the lordly lion. There are no invidious distinctions made, and the humblest beast that crawls may secure the valuable services of the photographer by giving the shortest possible notice. How different it would be in the case of persons. The shortest possible notice might be considered sufficient in the case of a coal-heaver, whereas a duke would be expected to give sufficient warning to give the photographer time to get a plate of comparatively recent manufacture, turn his collar, and oil up his top hat. Observe, too, the unusual fact that the operator is quite prepared to snap a bassinette travelling at sixty miles an hour. I don't know whether the bassinette is supposed to hold the usual squalling contents and to be propelled by the usual nursemaid; if so, there would be considerable interest in a photograph of the whole collection hurtling along at a mile a minute.

* * *

"Schools, Football and Cricket Teams, Friendly Societies, Weddings, Funerals, Christenings, and all other diversions attended." That is an excellent list of "diversions," but I should like to see executions and surgical operations included. It would certainly add to the enjoyment of a man who was about to indulge in the diversion of being hanged if he could rely on the attendance of such a good all-round photographer as our professional friend. There may be some who doubt whether even the presence of a first-class photographer could convert a wedding into a diversion, but these are just the sort of persons who would look glum even at a funeral.

* * *

"Mothers' Meetings, Girls' Friendly Societies, and Baby Shows taken by a hand that has rocked the cradle." Let us hope that the hand did not rock the cradle at the same furious rate as it propelled the bassinettes and mail carts. If it did there would be a horrible scarcity of entries for the baby shows. I was not, in fact, aware that ability to rock cradles was an additional qualification in photographic work, but if ever I have to photograph a baby show (which may the fates forbid) I shall certainly take the precaution of going in for a short course of this useful exercise.

* * *

"Castles, Yachts, Farmhouses, Houseboats, Cottages, Caravans, Tents, etc., taken by a practical man with an eye for beauty." We may, I trust, assume that the practical man has two eyes for beauty, and even these would be hardly sufficient to spy it out in a tent, to say nothing of a caravan. I also hope that the word etc. is intended to include jails. There is often a good deal of beauty in a jail, especially after a suffragette outbreak, although I doubt if a practical man with an eye could detect it.

* * *

"Soldiers and Police a Speciality. The operator, having been in the Army, can be safely relied upon for a true military effect." He should have finished his training by serving a short period in prison so as to have given the correct appearance to police and warders. But if he can really substantiate his claim to rendering a true military effect, he ought to be violently busy amongst the territorials, yeomanry, boy scouts, church lads' brigades, and other comic imitations of the genuine warrior. A photographer who could impart a military appearance to a boy scout should never lack employment. I can imagine the glee of a territorial whose portrait was so imbued with the true military effect that it was actually mistaken for one of a real soldier. He would arise and call the photographer blessed. He would shower golden blessings and fourpence on his head. But great as is my admiration of our photographic friend, and unbounded as is my faith in his miscellaneous abilities, I must fix one little bound to his powers: I can never, never believe that he could impart the true military effect to policemen. He might manage it in one or two cases, but most certainly not in all. I know some policemen who would tax his powers to the utmost to avoid having their portraits present the true hogshead effect.

* * *

"Particularly successful with Children. Needless to say ——— has been known to bring a smile to the face of an infant after its mother had given it up in despair." You will see I have omitted the photographer's name. It were better so. It would never do to disclose his identity. He must be quite busy as it is; and if I gave his name and address he would be forthwith overwhelmed with sheep, railway trains, funerals, baby shows, tents, police, and all his other diversions and specialities. Of course, he is successful with children. No doubt they wake up in the night and cry for him. What child would not revel in the sight of a man who is photographing a cow one minute, and directing his eye at the beauty of a tent the next? What child would not love the practical man who rocks their cradle with one hand while with the other he snaps their sixty mile an hour bassinette? I am glad the children smile at him. I can quite understand it. He is a good sort. And it must be so much more pleasant to be smiled at by children than treated as they treat me. When children see me approaching to photograph them, they either look at me in horror amid awed questionings of "What is it?" or rush away shouting "Help, help!" I must certainly try some cradle rocking.

THE WALRUS.

SUBSCRIPTIONS.

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Work in Makeshift Dark Rooms.

The bathroom or the scullery : the water supply and sink : making the room dark : the defects of most dark room lamps : chemicals which stain the bath : injuries to marble.

IT is possible to practise photography as a hobby, and to practise it very successfully without a dark room at all; but although there are many who manage to dispense with it, there are many more who have a dark room of sorts, temporary or permanent, and so are able to undertake those forms of work of which the roll film and the developing machine do not admit. One of the first questions which anyone taking up photography is likely to ask himself is, "How shall I manage about a dark room?"

The great majority of amateur photographers are not able to put aside a room for this purpose exclusively, and have to make shift by adapting one of the rooms in the house temporarily. Of these the bathroom and the scullery are those most frequently selected, the bathroom being perhaps the more popular. The choice is determined in large measure by the facilities these rooms possess for getting as much water as may be wanted and for disposing of waste solutions, a water supply and drain being the most important conveniences which a dark room should possess.

The Scullery is Preferable.

When the household authorities permit, it is wise to select the scullery rather than the bathroom, because it has a regular sink at which the work can be carried out, and because there are other objections to the practice of photography in a clean and nicely-decorated bathroom. Chemicals, measures, dishes, etc., look out of place in it; it is not always easy to avoid making a sloppy mess, owing to the absence of the sink, and if photographic solutions are emptied into the bath its appearance will very soon suffer, if it is an enamelled metal bath, by the discolouration of the enamel which is certain to result.

Whichever room is selected, unless its use is to be limited entirely to night time, the first step is to provide some means for excluding all actinic light. It is well not to consider any method of using daylight filtered through glass or fabric as the illuminant. Its strength fluctuates so much that a screen which will make the dark room perfectly safe when the daylight is strong would make it altogether too dark when the daylight was weak, while if it were right for weak daylight it would be unsafe in a strong light.

A more important consideration is that daylight soon causes the screen to fade, and what was once perfectly safe becomes a source of light fog, which may not be suspected until it has done a good deal of harm. It is better, therefore, to block out the daylight altogether, which may be most easily done by making a light wooden frame, covering this with calico or canvas, and pasting on this canvas a double layer of brown paper. A neater way of excluding daylight, but one which is more trouble to arrange, is to provide an opaque blind on a spring roller. The edges of the blind are fitted so as to travel in grooves in a wooden frame, and it is provided with a lath at the bottom, which also enters into a groove in the bottom of the frame when the blind is drawn down. The frame can be permanently attached to the window, as it need not be in the least unsightly.

Darkened by merely pulling down the Blind.

The blind itself may be made of a couple of thicknesses of black glazed lining, and any other fabric that is preferred may be put on the outside, so that the aspect of the window when the blind is drawn down is

MEMORANDA *for the week.*

In this space we announce, as occasion arises, things which in our readers' interests they would do well to note.

not so funereal as it would be with the black blind alone. In this way, the room can be darkened in a moment by drawing down the blind. The groove in which the blind travels should embrace it as closely as is convenient, and the blind should enter it for at least an inch and a half, the whole of the interior of the groove being given a coating of dead black paint. The different layers of fabric forming the blind should not be fastened together at their edges, but only at the top and bottom, as otherwise it will not hang well.

The Fault of most Red Lamps.

Having made the room perfectly dark, the light to be used is the next consideration. The prevailing fault in dark room lamps is that the area of the glass or fabric is far too small, the consequence is that very little light is transmitted, the photographer has to work close up to the lamp, and, while his plate is fogged, he does not have a reasonable quantity of light in the room to see what he is doing. It is curious that while in other directions photographic apparatus has been greatly improved, the dark room lamp is often as unsuitable for its purpose as well can be.

No doubt the amateur photographer's objection to a large lantern as taking up too much room is to blame for the host of ridiculously small and inefficient lanterns that are still to be seen in shop windows; but that there is a demand for something better the excellent lantern recently put on the market by Messrs. Boots has shown. Nothing handicaps the photographer more than a badly lit dark room; and the amateur who is making his arrangements should bear that fact in mind, and should make a point of getting a large lantern with plenty of ventilation and made to accommodate large light filters.

Returning to the subject of temporary dark rooms, there is one advantage which the bath room or the scullery may possess (although it should not) over the permanent dark room, and that is the almost compulsory cleanliness of the room. In any household with the faintest pretence to order there will be no opportunity for the accumulation of messes in the shape of stale fixing baths, hypo strewn floors, and dregs of chemicals; and next to a poor light in the dark room come untidiness and dirt as causes for failure.

Solutions which Discolour the Bath.

If the bath is used as a receptacle for waste solutions, nothing should be allowed to go into it that is likely to discolour it. A great many of the liquids used in photography are harmless enough; but there are some of which this cannot be said. The worst of all from this point of view is the sulphide solution used for the toning of bromide prints. This will blacken white paint or white enamel almost instantly; and the blackening being due to a chemical change of the enamel itself and not to a mere superficial staining, there is no remedy for it. Almost as bad in its staining property is the hypo-alum bath sometimes used for toning. Most developers act superficially and cause a stain, which it is difficult to remove; while strongly alkaline or acid liquids, if they do not themselves give rise to stains, attack the enamel, roughen its surface, and in that way make it much more easily discoloured by other liquids.

These solutions, therefore, should not be thrown into the bath, but poured into a jug or pail and emptied away down a sink or drain where they can do no harm. The bath may be used for washing prints or negatives without hurting it, and, indeed, is often very conveniently employed for this purpose, as is shown by notes which have appeared from time to time in *Photography and Focus.*

Injuries to Marble.

Photographic operations are sometimes carried out on the marble top of a washstand; but this should certainly not be done. Not only is the marble very easily stained, and stained beyond repair, but it is readily attacked by acids. Consisting, as it does, in great part of carbonate of lime, almost any acid solution spilt upon it causes effervescence, and dissolves some of the marble. Glazed earthenware is much less easily attacked by chemicals. R. C. B.



The Lantern Slide Competition.

The annual lantern slide competition is always one of the most successful of those held by *Photography and Focus,* and has been more so than ever since the classes were simplified and the rule introduced of purchasing at a fixed price all those slides which are selected for circulation, with the exception of the slides which receive awards. We do not suggest that the fee of half a crown which is paid in such cases is more than a nominal one, but it has at least done what it was hoped that it would do, and has brought about a very large increase in the number of entries both last year and the year before, and so has fully justified its retention this year. The full rules and conditions of the slide competition will be found this week on page xxvi., and we would ask our slide-making readers to note them, and to note also that all entries in the competition will close on Monday, October 18th.

The Standpoint in Architecture.

The best standpoint for the camera when the subject is an architectural one is very seldom to be found immediately opposite the centre of the subject to be photographed, yet a great many amateurs seem to select such a position, or if they do not deliberately select it they put their cameras down in it without a thought of its unsuitability. The result is that the subject generally appears quite symmetrically placed in the picture, everything on the right-hand side being faithfully repeated by something exactly similar on the left. This is an excellent arrangement in an architect's elevation, and when the aim of the photographer is simply to make a bare record of the architecture there is little or nothing to be said against it; but if the photograph is to be anything more—if it is to

convey some suggestion of the beauty or of the sentiment of the work which it records—then this strictly symmetrical arrangement must be abandoned for something which is balanced, it is true, but not in so regular and monotonous a manner. The main lines of the building must not be parallel with the axis of the lens, but some diagonal view, some transverse aspect, should be chosen, so that the principal outlines of the subject as seen in the picture are no longer stiff and formal. In a recent competition there were no fewer than four photographs of ancient doorways, all taken with the doorway parallel with the camera and the lens exactly opposite the middle of it. Perhaps those who sent them in and others of our readers will take the hint which this note is intended to convey.

Waste of Time.

The series of articles on "Making the Best of It" which we commence this week should be helpful to those who have got poor negatives from which they wish to make as good prints as they possibly can. But we cannot let such a series appear without a word of advice, which we hope some of the beginners amongst our readers will lay to heart. The devices for "making the best of it" should only be adopted when it is not possible to make a fresh negative avoiding the faults of the first. None of these plans will give as good a print as can be got from a negative that is itself good in the first place. Moreover, it cannot be pointed out too emphatically that all these methods call for a certain skill and practice. The beginner will find it easier to take a fresh negative than to reduce or intensify one to the best advantage, and he will master photography far more quickly and more completely if he never lets such a thing as an intensifier or a reducer appear upon his shelves, and when he gets a poor negative resists the temptation to print it and makes a fresh one. The methods, useful as they are at times, only make the best of a bad job, and the more fully that is realised the better for the photographer who finds himself compelled to use one or other of them.

Saturated Solutions of Hypo.

Certain salts—potassium bichromate and mercuric chloride for example—are very conveniently kept in the form of saturated solutions. If the bottle is occasionally shaken up—and there are always some crystals at the bottom of it—we may rely upon the solution being always the same strength, or rather not varying sufficiently to make it necessary to take the variations into account. The quantity of a salt which is present in a saturated solution, however, is not always so constant, and one of those which are most irregular in this respect is hypo. A pint of water, the tables tell us, will dissolve over twelve ounces of hypo at ordinary temperatures; but although it is possible to make a solution as strong as this, it is difficult to do so except with very hot water. Moreover, if a solution of this strength is allowed to get very cold, some of the hypo will crystallise out, and this will not automatically redissolve on the temperature rising again. The presence of hypo crystals at the bottom of the bottle is therefore no evidence at all that the solution is saturated, and for this reason, therefore, it is better always to make up stock solutions of hypo to some standard strength, say four ounces to the pint.

THE TRANSFORMATION.

"I'm weary," said Wilkins, "of trying to work
With this rotten old outfit of mine.
To get out the back, you've to wriggle and jerk,
And the rackwork is all out of line.
The lens barely covers at f/32,
And the slides are the worst I have met,
And the bellows are leaky. I know what I'll do—
I'll sell it for what I can get.

"If you hear of an outfit for sale second-hand,
At five or six guineas or so,
In fairly good order, you quite understand,
Old fellow, you might let me know."
I told him I would, and the very next week,
In the second-hand columns I found,
A bargain that struck me as being unique,
Which should suit him right down to the ground.

So I cut out the ad., and to Wilkins I wrote—
"Dear Wilkins,—This ought to suit you,
It's got a magnificent lens, you will note,
It's almost unused, and quite new.
I should think it a perfectly safe thing to buy,
So far as a fellow can tell."

* * * * * *

By postcard I got his laconic reply,
"That's the outfit I'm trying to sell."

Points Worth Noting About Our Next Issue.

THE contents of the next issue of "Photography and Focus" will be of a very varied character. An illustrated article on "Photographing the Sun and Moon," by Rev. James Cotton, will describe how a camera may be fitted to a telescope in order to give satisfactory pictures of those bodies. Mr. Thomas Kingham describes, with illustrations, how a number of very useful supplementary pieces of apparatus may be made by means of cardboard and glue. A method of mounting thick and heavy enlargements with gelatine is the subject of a note by Mr. W. Moore, while an illustrated article by "The Tramp" deals with

COLOUR VALUES OF FOLIAGE.

These will be in addition to the usual features of the paper, "Piffle," the "Critical Causerie," "Odds and Ends" by readers, and one of the series on photographic lenses, the instrument described being the Goerz "Dagor."



REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

ROMINAL (Dublin).—One part to thirty of water. Nothing else is to be added.

C.F.B. (Middleshrough).—The Crown Photographic Manufactory, Rotherham, supplies them.

MOUNTING (Stamford Hill).—They can be obtained from Bartons, 36, Cornwall St., Birmingham.

W.W.R. (Paddington).—There is no reason that we can see why the claim should not be fully justified.

B.E.T. (Liverpool).—The rooms are in Eberle Street, and a line to the secretary would bring you full particulars.

W. H. GEE (Boxmoor).—Why not ask for a deposit equal to the value you put on the camera. The rules are given on page xxvi. this week.

LUX (Staines). — Great under-exposure is the one fault which is evident in the negative, which has been returned. Try five or ten times as long.

W. BULL (Plymouth).—No such material has ever been put on the market; nor is it likely that there would be sufficient demand to justify its manufacture.

J. C. (Guernsey)—All three papers are large buyers of photographs; but we must refer you to their pages to see the class of picture which they require.

FRANK (York).—The exposures with f/6 and f/8 should be in the proportion of 9 to 16, in other words f/6 requires a little more than half the exposure required by f/8.

WALTER HARRIS (Manchester).—The cotton wool must be squeezed almost dry or it will not have any tooth. No doubt you used it too wet. No great pressure is needed, and its action will soon be manifested by a blackening of the wool, which should then be changed.

ERNEST RICHARDS (New Barnet).—This was a case for the deposit system, which has been arranged to meet just such a state of things. We are sorry to hear of your experiences; but we do not see how we can protect readers who will send goods or money to unknown persons.

W. WIMSUM (Wyvil Street, S.W.).—The bath is exhausted when the twelve prints are toned; and it would certainly be false economy to add more gold. The quantity of gold named is a reasonable one; whether it is "economical" or not depends on the value that is attached to permanence.

THAMES (Henley).—The exposure is halved by halving the width of the opening of the blind, and to all practical purposes the exposure is proportional to the opening, so long as the spring tension remains unaltered. No doubt the point you raise has a basis of fact, but its influence is so small that it may be disregarded.

C.V.G. (Virginia Water)—About forty times the exposure will be necessary. It is difficult to see that there would be any advantage in using lantern plates for the purpose; in fact, unless they were backed, there would be a very distinct disadvantage, since they are much more transparent. We recommend an ordinary plate backed.

T. HUGHES (Liverpool).—Black backing is generally preferred for orthochromatic plates, and is easily made by adding a little black water colour to the ordinary backing. It will be found, however, that the commercial red brown backings work in practice almost as well, and unless the plates are panchromatic ones we should not trouble to change the backing

BEGINNER (Sutton Bridge).—If you always get dark corners to the negatives the lens does not cover the plate properly, and, if possible, we should advise that it be sent back to the makers. The defect will be lessened by stopping down, increasing the exposure proportionately; and it is always more perceptible when the plate is a little under-exposed than when the exposure is full.

WILTONIAN (Islington).—We have returned the negative. The little spot looks like the result of a drop of some solution falling there after the plate was dry. The negative would be all the better for longer exposure, and also for the light being more diffused than it is. This would avoid the very harsh spots of light on the fruit. It is, if anything, slightly over-developed for this class of subject.

CERTAINTY (Hornsey).—There is no such method.

A.H. (Newcastle-on-Tyne).—Any dealer will supply it. Kodak, Ltd., list it.

HAND CAMERA (Coalville).—Evidently the paper was not in contact with the negative all over during printing.

VELOX (Lowestoft).—The report had reached us from another source, but we are obliged to you all the same.

W.B.A. (Oswestry).—The factor is 12 or thereabouts, according to the character of the negative which you desire.

CARLISLE (Carlisle).—It is quite impossible to say what are its contents now. You had better throw them away and mix up a solution in accordance with the instructions.

ANASTIGMAT (Hungerford). — The term means "without astigmatism," and is applied rather loosely to lenses of modern design in which this defect has been very greatly reduced.

H. LAWSON (Lynn).—It would be best to write to the Leto Co., at Roman Wall House, Crutched Friars, E.C., for particulars, and for the name of their nearest agent. Your supposition is correct.

G.F. (Leicester).—The speed of the two brands is as nearly as possible the same; and there is nothing to choose between them in point of quality. We cannot see that you would gain anything by the change.

VEXEN (Liverpool).—It reads like under-exposure, in which case intensification with mercury and ammonia may give an improved result, but in the absence of a print our advice can be founded on what is only a little more than a guess.

AMATEUR (West Bromwich).—As far as we are aware, there is nothing to choose between the different formulæ; but we should not recommend the process at all for "the finest tones." There is nothing like proper gold toning for these, and you would do well to stick to the makers' formulæ.

PUZZLED (Northampton). — The discolouration appears to be due to fumes of some kind which have reached the paper while in the packets. Gas fumes would cause it and so would any that might escape from a bottle of sodium sulphide or during sulphur toning. The only way to prevent it is to store the paper in a purer atmosphere.

MRS. TIMMIS (Leyburn).—The water supply had nothing to do with it. The fault is clearly caused by the film not being perfectly flat at the time it was exposed, and so part of the image was thrown out of focus. This is clearly shown by the wavy line of the edge of the picture, from each bend in which you will see the effect proceeds. We have returned negative and print.

VAP (Liverpool).—There are several methods. It may be put in an enlarging lantern and a print made of any desired size on bromide paper, or the bromide paper may be soaked in water, squeegeed to the wet negative (which in that case must be washed quite free from hypo) and a print made in that way; or a piece of clean celluloid film may be squeegeed down on to the wet film, and a print made through it on to a dry piece of paper.

H. SHAW (Widnes).—The print tells nothing of the quality of the lens. The definition, it is true, is excellent; but there is nothing to show that the lens was not greatly stopped down to get it—in fact, the remarkable depth of focus suggests that this was the case. A thoroughly bad instrument would give as good a result at f/32, but, of course, we do not suggest that this one is such. All we say is that you have given us no evidence one way or the other.

H. BARNETT (Ealing).—The solutions should be almost colourless, 2 quite so, 1 slightly yellowish or pink. It is best to make No. 1 of water which has boiled for two or three minutes and then been allowed to get cold without agitation. The metabisulphite should then be added, and when it has quite dissolved, the pyro may be added also. This gives a solution with less colour, and therefore less oxidised, than if the ingredients are simply mixed with tap water.

SEAL BARK (Manchester).—Yes.

MICRO (Spalding).—The Zeiss Apochromats.

SPEED (Hatcham).—The second is the faster of the two; but the difference is not very great.

LANCASTRIAN (Bognor).—Yes, such classes are held in some of the cities, but we have no detailed list.

H. DICKSON (Worksop).—Whether you are "within your rights" can only be settled in a court of law; but on the face of it your letter seems to make out a good case.

G.G.F. (Waterloo).—He has not been connected with it for several years, and is now in America. The process seems to have "petered out" before reaching the commercial stage.

G. H. RAVELLI (Cockspur Street).—We are sorry we cannot give you "some hints"; but considerations of space compel us to limit this column strictly to replies to specific enquiries.

FADEN (Chesterfield).—We can only suggest that you tone and fix them by the formula given by the makers of the paper. We do not see that any departure from it could be of advantage.

A. SHORROCK (Blackburn).—The query is not at all in our line; but we should try wetting the paper and then gently rubbing with the finger tips. Probably the picture will need varnishing afterwards.

LEICESTER (Leicester).—"The Gum Bichromate Process," by Cruwys Richards, price 2s. 6d. nett, or post free from our publishers for 2s. 9d., will give you full working details of the process. It would take up far too much room here.

AN OLD READER (Bowes Park).—Incipient decomposition of the gelatine, due to (1) too strong a sensitising bath, (2) the hot weather, or (3) excessively hot water for development is the cause of the trouble, which is known as reticulation.

OPTICS (Gateshead).—The Aldis will answer your purpose; but we do not understand what you mean by the "beautiful drawing and modelling." You will not find one lens appreciably better than another in these respects, but only in definition.

PLATINO (Sheffield).—Yes. No alteration beyond using the developer hot instead of cold and adding to each ounce two or three drops of a saturated solution of mercuric chloride is necessary. It was fully described in our issue for June 1st, 1909, page 446, etc.

PUZZLER (Anerley).—If the scale on the camera is correctly set, then there is something wrong with the lens, and it should be returned to the makers. Cannot you fix up a focussing screen temporarily in some way to see whether the lens will actually give a sharp print or not?

HAND CAMERA (North Walsham).—As you say, you could hardly go wrong with any of them. We have made no comparative tests, so cannot arrange them in order, but have been very pleased with 2, 3, and 4, and know nothing against 1 or 5, of which, however, our experience is more limited.

FREE LANCE (Belfast).—A quarter-plate camera with enlargements half-plate size on glossy bromide is what we should recommend. It is not *necessary* to send silver prints, but they look more attractive and so are advisable. We do not know what is meant by "silver prints or ebloride," and doubt if the writer did.

H. THOMPSON (Harlesden).—You require a condenser, which is a lens of greater diameter than the diagonal of the negative, and must be put close to it. An ordinary 5in. lens is no good. Failing the condenser, you must diffuse the light by means of a couple of pieces of ground glass an inch apart and at least an inch from the negative.

DRUM (Plymouth).—Whatever may *seem* to be the cause, the actual cause undoubtedly is the insufficient washing. You might put them for a quarter of an hour into a clean solution of hypo of three ounces to the pint, and follow this up by half an hour's washing under the tap, or an hour with several changes; this would do all for them that can be done, but it would hardly get rid of the marks made by the crystals.



THE ROTHERHAM PHOTOGRAPHIC Society holds its exhibition from October 20th-23rd, entries closing October 11th.

DISCONTINUED. We regret to note the disappearance from the columns of the "Pall Mall Gazette" of the excellent photographic column, signed "J. M. B.," which used to be a feature of each Tuesday's issue.

TOUTING PHOTOGRAPHERS are to be excluded from Jesmond Dene, the beautiful Newcastle-on-Tyne park; but amateurs will not be prevented from photographing the waterfall and other attractive landscapes there.

THE THORNTON-PICKARD COMPETITION, with prizes to the value of £100, we are asked to remind our readers, will close on October 1st. A prospectus and entry form will be sent post free to all applicants by the Thornton-Pickard Co., Altrincham.

CAMERA AND SHUTTER REPAIRS. Messrs. James A. Sinclair and Co., Ltd., of 54, Haymarket, London, S.W., announce that they have secured the co-operation of Mr. Arthur S. Newman, and that all repairs and alterations of high-class and delicate or intricate mechanism will receive his personal supervision.

LISTEN TO THIS. "Tit-Bits" states: "The launching of great battleships and liners is the time for photographers to show their mettle. They climb the masts of ships, to be dislodged sometimes from their point of vantage by the huge tidal wave, and are often rescued from a position of extreme peril just in time."

BROMOIL AND OTHER ENLARGEMENTS. Messrs. R. and H. Chapman, of 89, Holly Road, Northampton, send us a price list of high-class photographic work which they are prepared to undertake. It includes, we note, the production of bromoil enlargements, and from comparative illustrations in the booklet Messrs. Chapman appear to be very successful in this direction.

PRINTS STICKING WHEN SQUEEGEED. Mr. George Pattrick writes, "With reference to the article in last week's issue on the glazing of prints, I can personally vouch for the efficacy of formalin in preventing prints from sticking to ferrotypes; as for some time now I have recommended this method to my customers with perfectly satisfactory results. In fact, I find that by hardening the prints in a 1 in 10 solution for ten minutes before glazing, the prints peel readily off the ferrotypes with a brilliant enamelled surface, which is not in the least affected by any future wetting. The advantage of this in mounting, etc., is inestimable. To be certain of getting the proper article, "a forty per cent. solution of formic aldehyde," should be asked for.

RECEIVING DAYS. Monday, August 30th, is the latest date for the reception of exhibits for the Photographic Salon; and Wednesday, September 1st, is the closing date for the R.P.S.

BURGLARY AT MESSRS. NEWMAN AND GUARDIA'S. On Sunday in last week burglars were successful in getting no less than £285 worth of cameras from Rathbone Place.

A SECOND-HAND PRICE LIST containing a very large number of items has just been issued by the City Sale and Exchange, 26 and 28, King's Road, Sloane Square, London, W., and will be sent post free to any of our readers on application.

MOUNTING PAPERS AND BOARDS are supplied by Messrs. Barton's, of 36, Cornwall Street, Birmingham, who issue a very complete box of samples, price 6d. post free. The boards are of high quality, and include a wide range of "art" tints.

NORMANDY, although so readily accessible from England, still has much that is quaint and unusual to English eyes, and is an ideal holiday ground for the photographer. Mr. Arthur Smith, at the Nelson Camera Club, drew attention to the many Norman villages which contained architectural features of great beauty and interest.

WASHING PHOSPHATE PAPERS. "Ensyna" writes: "With reference to the interesting letter in your issue of August 17th, by H. G. Bailey and T. G. Ward, I may say that, being interested in 'Ensyna' paper, I experimented with it about nine months ago, and simply washed the prints for two or three minutes. From that time until now they have been exposed to direct sunlight, and still remain the same."

THE SOUTHAMPTON EXHIBITION will be held from November 23rd to 26th at the Art Gallery, and entry forms, which are now ready, can be obtained from the honorary secretary, Mr. S. G. Kimber, Oakdene, Highfield, Southampton. Arrangements have been made with the Hackney Society (which will collect exhibits free from the R.P.S. and Salon exhibitions) for pictures to be sent on, carriage paid, from Hackney to Southampton. There are classes for technical and for colour work. Lantern slides will be judged singly and not in sets.

FREE ILLUSTRATED LECTURES. Mr. Chas. R. Rowe, who for many years was on the staff of *Photography*, is making arrangements to deliver illustrated lantern lectures upon various subjects connected with the counties of Devon and Cornwall, with every corner of which he is thoroughly familiar. He is a recognised authority upon them, and as a lecturer of long experience knows how to attract and hold the attention of his audience from start to finish. Those interested should lose no time in sending a stamped addressed envelope to Mr. Rowe for details, as the available dates are being rapidly filled up. His address is 83, Edith Avenue, Plymouth.

OUR LANTERN SLIDE COMPETITION. Full particulars of this, together with the rules of entry, are given on page xxvi. this week.

THE SCOTTISH SALON. The board of selection will consist of Messrs. J. Craig Annan, Archibald Cochrane, and W. B. Lamond, R.B.A.

SOCIETY FIXTURES. The opening of the sessions of a great many photographic societies will take place within the next few weeks. We are anxious to keep our list of "The Week's Meetings" as complete as possible, and should be much obliged if the secretary of any society whose meetings do not appear there regularly will forward us a copy of the syllabus.

THE CONWAY VALLEY is the subject of a sixpenny booklet which includes reproductions of over a hundred photographs by Mr. T. Lee Lloyd. It is published by J. M. Clark, of 12, Preeson's Row, Liverpool, from whom it can be obtained post free for 7½d. It gives an excellent idea of the delightful district which forms its subject.

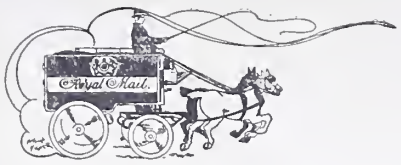
The Telectrograph.

THE transmission of photographs by telegraph has been developed by the "Daily Mirror" until it has become a regular feature of that paper, the latest apparatus for the purpose being the Telectrograph, the invention of Mr. Thorne Baker, the expert on the "Mirror's" staff.

In this apparatus a half-tone photograph is first printed upon thin sheet lead, and is then compressed in a hydraulic press until the dots of bichromated gelatine or fish glue are forced into the lead, so that its surface is left perfectly smooth. The lead plate is then bent round a cylinder, which travels spirally under a fine metal stylus, a current passing through the lead and the stylus, except when this is on one of the "glue" spots. This current thus reaches the telegraph line.

The receiving arrangement is based on the electro-chemical telegraph. That is to say, a sheet of chemically-prepared paper is bent round a metal cylinder, and travels spirally in synchronism with the transmitter. Whenever a current passes through the prepared paper it makes a dark brown mark, and in this way the picture is built up again at the other end of the line. There have been very great difficulties in actual practice in getting this apparatus to work through a line of such a length as that between Manchester and London electrical difficulties, which we cannot do more than hint at in this place but they have been most successfully overcome after a great deal of experimenting by Mr. Thorne Baker, whose latest machine is so simple that expert attendance has ceased to be necessary.

When we were in Mr. Baker's laboratory recently, he told us that before very long he hoped to have a system for the wireless transmission of photographs in full operation.



Correspondence.

The Editor is not responsible for the opinions of his Correspondents.

THERMOMETER SCALES.

Sir,—The method of converting R° into Fahr.° given by Mr. Ralli, on page 48, of No. 1,080, of *Photography and Focus*, is incorrect, as the addition of the 32 must be made after multiplying by 9 and dividing by 4, and not before doing so, as he states.

The 32° Fahr. is a puzzle to many, until the relative constructions of the various scales is understood. Perhaps the diagram below may serve to make this clear.

Celsius took as the points of his scale the freezing and the boiling points of water. Reaumur did the same; but not so Fahrenheit. He sought an absolute zero (or greatest cold possible), and thought he had found it. But, like Celsius and Reaumur, he recognised the freezing and boiling points of water as two fixed points for the scale. Celsius divided the interval between these two fixed points into 100 degrees, Reaumur into 80 degrees, and Fahrenheit into 180 degrees, the latter finding his zero point 32 of his own degrees below freezing. This he called 0°, or zero. Consequently, when converting degrees Fahrenheit into either of the others, this 32° must be subtracted *first*, and in converting either of the others to Fahrenheit, this 32° must be added *last*.

So that between freezing and boiling points the relations are—

C. R. F. C. R. F.

100 = 80 = 180 or 5 = 4 = 9,

and for the conversion of one into the other the following formulæ are to be relied upon.

C. into F. Multiply by 9, divide by 5, and then add 32.

F. into C. First subtract 32, then multiply by 5, and divide by 9.

R. into F. Multiply by 9, divide by 4, and then add 32.

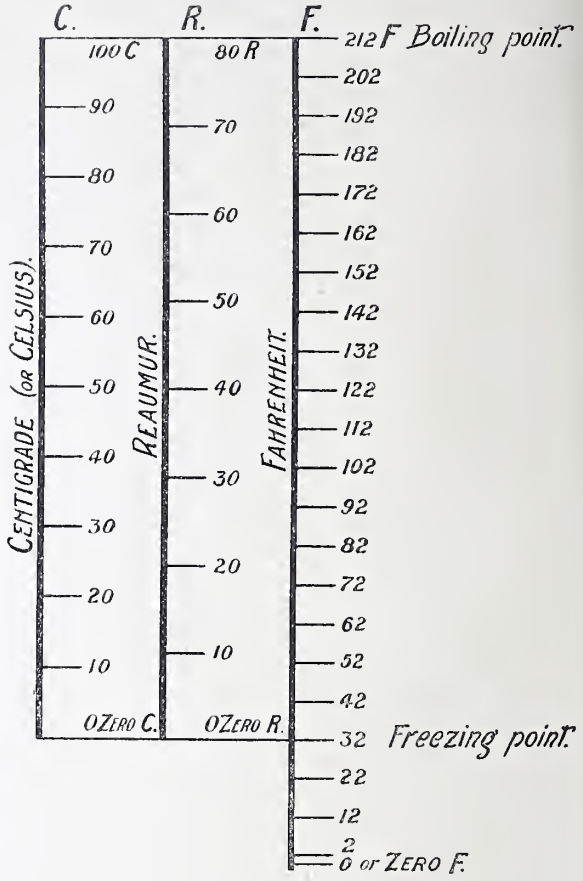
F. into R. First subtract 32, then multiply by 4, and divide by 9.

C. into R. Multiply by 4 and divide by 5.

R. into C. Multiply by 5 and divide by 4.

I am aware that my figuring of the Fahrenheit scale in the diagram is somewhat unusual. but it is put this way in order to show how the 32° are outside the scale of the other two, and must be allowed for in the proper place to bring F. within the limits of comparison. Yours, etc.,

WEB.



BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

SUBSCRIPTION.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
Twelve Months	6	6	Twelve Months	10	10
Six Months	3	3	Six Months ..	5	5
Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

REMITTANCES.—Postal Orders, Cheques, etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

EDITORIAL NOTICES.

ADDRESS.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.



MAKING THE BEST OF IT

A Series of Suggestions for Making Good Prints from Poor Negatives

By Chas. M. Lewis. (Special to "Photography & Focus.")

Excessive Contrast.

IF the negative has too much contrast, from having been developed too far, this may be reduced by the application of ammonium persulphate. A convenient form in which to keep this is the stock solution recommended by Mr. H. W. Bennett. This consists of

Ammonium persulphate	480 grains
Sodium sulphite	96 ,,
Sulphuric acid	48 minims
Water	10 ounces

For use, one part of this solution is diluted with nine parts of water, and the negative immersed in it and the dish rocked. Soon a whitish substance seems to be coming away from the film, and the reduction begins to take place. When it has gone far enough, the negative is washed and dried. This reducer undoes the work which the developer does. It reduces the shadows a little, but it reduces the denser portions much more, and the result of its application therefore is a general reduction of the contrast. Most other reducers actually increase the hardness of the print by taking away what little deposit there is in the shadows, and only removing a similarly small amount from the high lights also.



At Work. *By E. F. Gilbert.*

Whenever possible, it is best to avoid any method which necessitates wetting the negative. If the plate has only a little too much contrast, therefore, it is better to try and minimise it by printing in a strong light or by using some printing process which tends to give soft results. Plain matt surface papers, self-toning papers, platinum, and carbon are included in this category. Special "portrait" gaslight papers are also made. These will be found to give soft results from hard negatives.

Sterry's process is another that may be used when the prints are wanted on bromide paper. In this the exposure which is required in order to give details in the highest lights has first to be ascertained by trial, ignoring altogether the shadows, which will be much over-exposed. Then a piece of bromide paper is given this exposure, and then, before development, is immersed for a minute or so in a one per cent. solution of potassium bichromate. It is then rinsed once or twice and developed. In this way a much softer print can be made than by exposure and development in the ordinary way. The extent of the softening action is governed very largely by the strength of the bichromate solution and the time the print is left soaking in it.

Want of Contrast.

THINNESS in a negative may be due merely to insufficient development, in which case intensification with mercury and ammonia will do all that is required. It may be due to under-exposure, and here also intensification with mercury and ammonia will improve things. (The excessive contrast which is sometimes said to be due to under-exposure is really caused by over-development, in the futile hope of bringing out detail in the shadows.) It may be due to fog, from light, from improper development, or from a stale or badly kept plate, and it may be due to over-exposure. But all these causes of thinness will be taken together, and dealt with subsequently under the head of "general fog."

As just pointed out, it is better, whenever possible, to avoid rewetting the negative, so that if the thinness is not excessive it can be remedied in the printing. Careful printing alone is sufficient to give a good print from many a negative which the amateur might fancy was too thin to yield one. In fact, these negatives, difficult printers, as they are termed, are those which give the very best prints, but the slightest under or over-printing spoils them. Nothing surprises the beginner more than the sight of some of the thin negatives from which some more experienced photographer has got his best results; afterwards he comes to realise that these are the negatives to try for, and his work improves accordingly.

By printing in a weak light, a thin negative gives a much pluckier print than if it is quickly printed in a strong light. If it is printed on P.O.P. a sheet or two of tissue paper, stretched over the front of the printing frame, will make a difference. Much more can be done by putting a piece of green glass over the front of the frame. Then gaslight paper gives greater contrast than ordinary bromide and that than P.O.P. There is also a gain in contrast when the print is made with a lens, as in enlarging, than when it is made by contact.

Uneven Development.

THERE are marks made by pouring the developer on one part of the plate some time before the rest which are most disfiguring. They are easily recognised by their long curved outlines, with more density on one side of the line than on the other. They are frequently the result of using too little developer or too little light in the dark room. Unless they occur right at the edge, and can be trimmed off, there is nothing whatever that can be done with them, and the negative on which they appear is ruined.

(To be continued.)



Testing the Colour Screen.

By C. E. Gravatt. *Special to "Photography and Focus."*

The growing popularity of the orthochromatic plate and light filter leads many workers to desire to know precisely the effect which their screens may exercise on the exposure. An easy method of finding this out is described below.

THERE is no more difficulty in determining the exposure required by an orthochromatic plate than there is in ascertaining the exposure for one which is not colour-sensitive. True, the paper in the exposure meter has not been orthochromatised; but, except in circumstances which are altogether unusual, no trouble is likely to arise on this score. But when a colour screen is used the conditions are not quite the same, and the photographer who would expose correctly must take a little trouble to learn the conditions under which he is going to work.

The principal thing is to know the colour screen or light filter. There are screens on the market which are sold as "five-times" or "ten-times" screens, for example, without the slightest reference to the particular plates with which they are going to be used. It is not possible to make a colour screen which will require exactly the same increase of exposure with every make of orthochromatic plate. In fact, it is quite impossible to state the increase, even approximately.

A year or two ago I found myself stranded as far as the plates which I had been in the habit of using were concerned, the supply being either cut off or at least suspended for the time. I had to purchase some other make, and, although I did not think that there was much necessity for doing so, I determined to ascertain whether the "ten-times" colour screen that had been supplied to me by the makers of the first plates required a similar increase for the second. On testing the screen I found that with the new plates its influence on exposure was diminished more than a half—in fact, it was with them a five-times screen.

Lest any reader should question my arithmetic by pointing out that reduction from a "ten-times" to a five-times screen is not *more than* a half, but rather is exactly a half, let me point out that the "ten-times" is in inverted commas. As a matter of fact the screen, although supplied by the maker of the plates as a "ten-times" one, actually needed the exposure to be increased twelve times. A smaller screen of the same kind, also nominally a "ten-times" screen, when used with the plates for which it was made proved to be a "nine-times" screen when carefully measured, although in this case the difference was not important, the results of giving nine and then ten times not differing appreciably.

The last paragraph will no doubt be accepted as showing plainly enough the need for some method of ascertaining as precisely as possible what increase of exposure any particular screen demands. This must be done with plates of the particular brand which is to be used with the screen.

The test subject must be one in which there is no colour at all, as if the subject had colour it would be very difficult to tell what increase was wanted, and, in fact, it might not be possible to compare the test plates properly at all. I say "test plates," because the only satisfactory method of making the comparison is by means of a camera test.

The simplest subject for the purpose that I know of is made by rolling a sheet of white blotting paper round a big bottle so as to make a tube, pinning the ends to prevent it unrolling, and then placing it on another sheet of white paper, on a table in a good light. The camera should then



Watching for Dad. *By Wm. Baldwin*

be set up to face it, so that the tube goes right across the middle of the plate from one end to the other. There will be gradation round the tube, and quite a dark shadow where it approaches the paper on which it is lying, and our aim must be to get a negative with as good a record of this gradation as possible.

Any subject that is black and white, and contains good gradation, will do for the test; but it *must* be free from colour, and it *must* have plenty of half-tone, or it will not give a reliable result.

as any plate remains unexposed. When such a plate is developed until the image in parts shows well through at the back, and is then fixed, it will be easy to see which exposure gave the greatest contrast between the highest lights and the deepest shadows, and that exposure will be the correct one.

The colour screen is then put on the lens and a second plate exposed through it. If the screen is nominally a ten-times screen, this second plate may have six, eight, ten, twelve, and fourteen times the correct exposure on one half



Evening. *By J. G. Parsons.*

If when all is ready the lens is dropped so as to bring the lower half of the tube well on to the lower half of the plate, we can make one plate do for the entire test. A sheet of black paper in this case must be shut into the camera by means of the reversing back, so as to cover entirely the top half of the plate. After having made the first exposure, without the screen, as described below, the paper is shifted so as to cover the lower half of the plate, and the lens raised instead of lowered, so that for the second exposure the lower half of the tube falls on the upper half of the plate.

Having arranged the subject, the test is made by exposing a plate upon it without the screen, and then making a series of exposures with the screen in position, and ascertaining which of the latter corresponds to the former. The first thing to be done is to ascertain by actual trial what exposure the subject requires.

To do this effectively, the shutter of the dark slide should be drawn right out, and an exposure much shorter than we think to be necessary given. The shutter is then pushed in half an inch and a second exposure of the same length is given. It is then pushed in a little more, and twice the former exposure given, then twice that, and so on, as long

of it, while on the other half, or on another plate, the already ascertained correct exposure may be given without the screen, and not in steps, but evenly right across the plate, for purposes of comparison. These two plates or two lots of exposures must be developed together, in the same dish, and for the same time.

When the negatives are finished they should be laid film downwards on a sheet of white paper, and the series of exposures with the screen compared with the single exposure without the screen. The one which most closely resembles the result obtained without the screen will then tell us at once how many times the exposure must be increased for that particular brand of plate.

A word or two may be added to prevent the experiment failing. The correct exposure without the screen must be found, and one of the exposures with the screen should resemble it closely in gradation. If not, the experiment must be repeated. No conclusions of any value can be drawn from incorrect exposures.

It is important also, if a reliable result is wanted, that the light does not change between the two exposures; but if the test is made in a good light out of doors on a fine day, not in direct sunlight, there is not much fear of this.

Special to "Photography & Focus."

An Outing Suggestion.

Written and Illustrated by "Will-o'-the-Wisp."

THE members of photographic societies—more particularly the older established ones—find it increasingly difficult to maintain an active interest in the outings usually arranged for the summer months. There are two main reasons for this. The first is that by degrees all the accessible places come to be regarded as photographically exhausted. This view, however, does not take into account the fact that new subjects and fresh treatment of old ones are always possible, and that different conditions of weather or time of year must also be taken into consideration. The second reason is the widely accepted belief that the best work is seldom or never done in company. There may be some truth in this; but if some modern work is the result of this solitary contemplation the sooner photographers become again gregarious the better.

In view of this flagging interest in outings, it may be well to refer to a special kind of gathering, which, although not by any means novel, is not as widely known as it deserves to be. Probably all societies boast one or two fortunate members whose homes and gardens present exceptional facilities for securing photographic pictures. The idea is that one of these should invite his fellow members to meet at his house and make use of the special advantages of his surroundings.

It is not a difficult matter to secure models suitable to the surroundings both within doors and without. Nothing elaborate is required. In fact, anything verging too closely on the theatrical is rather to be avoided. A room may, for example, be specially adapted for studies in indoor portraiture, and in that case the members themselves may become victims in turn to the cameras of their friends. Out of doors the presence of a sundial, a fountain, or a garden seat may suggest other possibilities; while a piece of natural scenery may well form the setting for a rustic figure. Dogs, cats, and other domestic pets may also be pressed into the service. Flower studies, or little architectural bits may also be available.

The few simple illustrations herewith are selected from some made with a hand camera on such an occasion. There was in this case a delightful stream running through the grounds, with a skiff and a Canadian canoe afloat thereon. There were two young ladies who were cheerfully indefatigable in posing in all sorts of lights and with varied settings. Later on they transformed themselves into charming versions of Rosalind and Celia in "As you like it," and were pleasantly Shakespearean.





Rosalind and Celia.



The Canoe.
Resting.

Beyond a doubt all the photographers enjoyed themselves. There was no disconsolate wandering hither and thither in search of something to justify an exposure. There were useful consultations and discussions as to arrangement, lighting, and exposure. With cameras of all sorts and sizes they

fired away until the shadows of evening fell long and dark, and there was not an unexposed plate left in sheath or slide. Whether amongst all the work done there was even one picture secured of outstanding merit, pictorially and technically, may be doubtful. But one thing is beyond doubt, and that is, that the practice, experience, and knowledge gained were considerable and valuable to the highest degree. The very failures, and they must have been many, would tend to the avoidance of similar errors in future, and a partial success might point the way to a subsequent triumph. Such work, in short, provides excellent practice, and practice makes perfect.

Here, then, is the outline of a suggestion which can easily be put into practice while the summer months are with us. Nothing is required to make such a gathering a great success beyond a little previous consideration of arrangements, and an ungrudging supply of that mutual help and friendly comradeship that should naturally be forthcoming amongst society members. Further advantage will result from a subsequent comparison of the work done, as this will indicate the causes of failure in some cases and the means by which success has been achieved in others. The whole idea is sufficiently novel and promising to prove attractive to the members of every society whose watchword is "Progress."

HOLIDAY INFORMATION.

Alloa.

Alloa, the county town of Clackmannanshire, is situated on the Forth, seven miles from Stirling, and thirty miles from Edinburgh and Glasgow. There is not much scope for photography in Alloa itself, but it is a good centre from which to work the glens of the Ochils, at the foot of which lovely range of hills it lies.

Places of Interest.

As far as buildings are concerned, there are the ruins of Alloa, Clackmannan, and Devon towers, and Castle Campbell all in the vicinity. Then there are Menstrie, Alva, and Dollar glens, where landscape scenery and waterfalls may be had galore.

The valley of the Devon is also fertile of picturesque material. This river has the peculiarity that, although it is some thirty miles in length, the mouth, as the crow flies, is situated only some six miles from its source. During its course, it rushes under the awesome Rumbling Bridge into the Devil's Mill, and churns its waters in the noisy Cauldron Linn. All these places are within easy cycling distance; while, for those who prefer the railway, there are frequent trains.

Antiquarians will find ancient town crosses at Clackmannan, Kincardine, and Culross, while at the latter place and at Alloa are two of the three towers to be found in Scotland with bell-shaped campanili.

The view of the valleys of the Forth and Devon, from the top of Demyat, 1,200ft. high, and four miles from Alloa, is one of the finest in Scotland. It stretches from Ben Lomond in the west to Edinburgh in the east.

Distances (all good cycling roads)—Culross and Rumbling Bridge, ten miles; Dollar, six; Kincardine, five; other places mentioned, two to four miles.

Dealer (darkroom), John Cummings, 21, Mill Street, Alloa.

Camborne.

Camborne, two and a half miles from the sea, is the mining centre of Cornwall. A mile away rises Carn Brea Hill, with Druidical remains and a castle, which form a prominent landmark. The hill is beautiful now with ferns and heather, and bears huge rocky boulders of curious shape. The cliff scenery near Camborne is very fine.



THE ONLY WAY. BY MISS MAY MANLEY.

Awarded Second Prize in the Beginners' Competition, July.

At one part, known as Hell's Mouth, the cliffs, which are over three hundred feet high, are so perpendicular that a stone dropped from the top falls into the sea. The cliffs have many picturesque coves and curious caves.

Dealer (dark room, free to customers until noon), W. J. Bennetts, Cross Street, Camborne.

Tadcaster.

Tadcaster, the "Calcaria" of the Romans, is on the River Wharfe, nine miles from York, and fourteen from Leeds. In the town itself are the fine Early English parish church of St. Mary, the oldest Sunday school in England (in Westgate), an old timbered house "The Ark" in Kirkgate, and a fine old stone bridge of eight arches over the Wharfe. To the west of the town is picturesque river scenery.

Places of Interest.

Newton Kyme, about a mile and a half from Tadcaster, is the ancestral home of the Fairfaxes. The church—an ideal country one—is ivy covered, secluded, and peaceful. The Fairfax chapel has an exceptionally fine "squint" opening. The hall stands at the end of a fine avenue of limes, planted by Admiral Fairfax in 1712.

Kirkby Wharfe (two miles), a rural village with a church and cross. Adjoining is Grimston Park with an imposing mansion in the Italian style.

Wighill (two and a half miles) has a church with a fine view. The Norman doorway and the rough adze-hewn oaken pews should be noted.

Towton and Saxton (two and three and a half miles) are historically interesting the leaders slain in the battle of Towton Heath being buried at Saxton.

Bolton Percy (four miles) has a large church, tithe barn, and picturesque thatched cottages.

Healaugh (three and a half miles), an ideal English village.

Dealer (darkroom), J. H. Hull, Bridge Street, Tadcaster, and High Street, Boston Spa.

Neath.

The town of Neath, lying at the mouth of the river of the same name, eight miles from Swansea, although itself containing nothing of importance to the photographer, has much that is of interest in the immediate surroundings. There is in the town the last remains of an old castle, and outside a fine old tower, "The Ivy Tower."

Places of Interest.

Neath Abbey (one mile).—The ruins of the Abbey make a good photograph from the moat or canal side, and provide plenty of architectural detail work, both inside and without.

The beautiful Vale of Neath abounds in rustic scenery, cascades, etc. High up in this valley is Glyn-Neath, with caves and some of the finest falls in Wales. This district well repays anyone fond of mountainous country and wild scenery.

Dealer (dark room), J. Griffith Isaac, New Street Square, Neath.

DARK ROOM DIALOGUES

THE development of Lawson's holiday negatives after the incident related in the last dark room dialogue was postponed for a week or two, but he travelled home with his friends one night and imparted to them *en route* that he was going to put it in hand that evening. "I have got fresh solutions made up, as you recommended," he told the sunburnt man, "and shall be all ready to make a serious attempt to get some of them done. You had better come in, if you have nothing else to do," was his parting invitation, which was accepted by both.

The scene changes, therefore, to Lawson's dark room, where the two friends find him, in his shirt sleeves, swishing round some milky-looking liquid in a large measure.

"What have you got there that won't dissolve?" enquired Oliver.

"It dissolved all right," said Lawson, pouring it into a dish; "it is the fixing bath."

"Surely something has gone wrong with it."

"Has it?" said Lawson. "I followed the instructions carefully enough. Oughtn't it to look like that?"

"It's not plain hypo, is it?" asked Oliver.

"No. I am developing with pyro, and I don't want any more stain than I can help, so I have made up an acid fixing bath."

"I should strongly advise you not to fix any negatives in it, if you value them at all," said the sunburnt man.

"Why not?"

"Simply that it is a sulphiding bath, not an acid fixer at all."

"What have I done wrong?"

"What have you done?" said his friend. "Tell us that, and we will see where you have gone astray."

"Well," replied Lawson, "I took the instructions that are given in this book. I dissolved a couple of ounces of sodium sulphite in half a pint of water and added a quarter of an ounce of sulphuric acid. That's the solution in that bottle. Then I added a couple of ounces of it to a pint of the hypo and there it is."

"The formula may be good enough," replied the sunburnt man, "but it is not a very satisfactory way of making an acid-hypo solution, as your own experience shows. That milkiness is due to sulphur, and its appearance shows that there was sulphuric acid in the solution you added to it, which has decomposed the hypo."



SHARPENING THE TOOL. BY REV. R. WALKER BERRY, A.T.S.
Awarded a Certificate in the June Competition.

"Of course there was sulphuric acid; the formula gives it. Here it is: it says, 'Sulphuric acid a quarter of an ounce.'"

"I mean *free* sulphuric acid," said the sunburnt man. "Have you never read in *Photography and Focus* that it is very dangerous to the permanence of prints or negatives to introduce acid into a hypo solution?"

"Yes," assented Lawson, "but I never quite understood what it meant, because we read that acid hypo baths are often recommended."

"It means that almost every acid except sulphurous acid decomposes hypo, forming other sulphur compounds which may injure the print. The acid used in acid-hypo baths is sulphurous acid, which does not decompose the hypo."

"The formula says 'sulphuric,' distinctly," said Lawson.

"I'm coming to that," said his friend. "If you add sulphuric acid to a solution of sodium sulphite, as you have done, you may have noticed that the solution at once smells strongly of sulphur."

"I have; it is like the smell made when one of those old sulphur matches were burned."

"That is sulphurous acid. The sulphite does not smell of it, nor does sulphuric acid, but when sulphuric acid is added to the solution of sulphite, it liberates the sulphurous acid which is present in combination with sodium, in sodium sulphite, and takes its place, forming sodium sulphate. So that, instead of sodium sulphite and sulphuric acid in the mixture, we really have sodium sulphate and sulphurous acid."

"So there is no sulphuric acid in the mixture at all. I see now why one may add it to the hypo," said Lawson.

"Half a minute," replied the sunburnt man. "There *should* be no sulphuric acid present, because enough sulphite should be present to combine with all the acid that you add. But if there is not enough sulphite for the purpose, then there will be free sulphuric acid left in the liquid, and when this is added to hypo, the hypo will go thick and cloudy as yours has gone."

"Then this solution is no good," said Lawson, taking down the bottle and preparing to throw its contents away.

"Don't waste it," was the reply. "all you have to do is to add some more sulphite to it, until you are quite sure you have enough. Put in about an ounce and let it dissolve."

"How am I to know if that is enough?" asked Lawson.

"Well, if it does not make the hypo cloudy you may take it that it has done what you want."

"I don't think that is a very safe guide," put in Oliver, who had not paid much attention to the discussion. "You see, when some acid is added to hypo it does not always visibly decompose it at once. It may be that the action will take hours to show any precipitate, especially if there is only a very little acid present."

"What do you advise me to do?" enquired Lawson.

"I think that as you have added such a lot more sulphite to your solution you are probably on the safe side. But I do not care for that way of making up an acid hypo bath at all. There is always a risk of having free sulphuric acid in the liquid. It is much better to make up an acid fixing bath by merely adding a little potassium metabisulphite to the hypo."

"How much do you have to add?"

"The proportions are not very particular," said Oliver. "I generally add half an ounce of metabisulphite to each pound of hypo."

"I think I shall do that in future," said Lawson. "Oh! there's one thing I wanted to ask you fellows about this sulphite and acid mixture. The instructions say that the sulphite is to be dissolved, then the acid added, and then some of the mixture added to the hypo solution. Does it matter if I simply add the sulphite and the acid straight to the hypo, instead of mixing them first?"

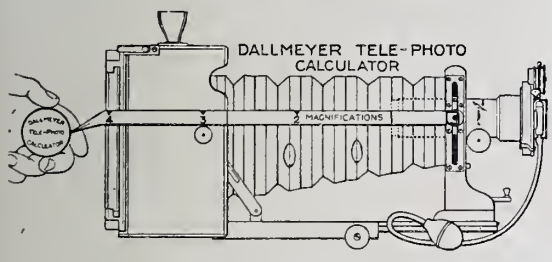
"Certainly it does," said the sunburnt man. "Sulphuric acid decomposes sulphite and it decomposes hypo. If both hypo and sulphite are present together and sulphuric acid is added, you will find that it will decompose the hypo in preference to the sulphite. But I think Oliver's way of making up an acid hypo bath is the best. I do not do it quite in the same way, since Autochromes came in, as I got a bottle of sodium bisulphite lye for them, and use it for making my acid hypo, merely adding an ounce of the lye to a Winchester of stock hypo; that is, I dissolve a pound of hypo in an eighty-ounce bottle, add an ounce of the lye, and then fill the bottle to the top with water, so as to get a four ounce to the pint solution. But if we go on talking you'll get no developing done to-night."

REVIEWS

The Dallmeyer Telephoto Calculator.

THE little piece of apparatus which in the illustration below is shown in use with a telephotographic lens has been introduced by Messrs. J. H. Dallmeyer, Ltd., of Denzil Road, Neasden, London, N.W., in order to do away with all calculations as to focal length or magnification when using such lenses.

It is simply a little spring measure in a case, and one side



being marked with a scale of inches it can be used for all the ordinary purposes of a measure. The other side is marked with a scale of magnifications, adjusted in each case to the particular negative lens that is in use, while its free end is furnished with a small hook, which can be attached to some screw or knob on the camera front; the number of magnifications can then be read off at once by measuring the distance from the front to the back of the camera as shown in our illustration.

When ordering this very handy little piece of apparatus, which in brass, marked for one lens for all extensions up to 3ft., costs 2s. 9d., the makers state that full particulars of the lenses used should be given, "including particularly the focal length of the negative lens, the distance from the back surface of the negative to the point to which the hook on the end of the tape will be fastened. The approximate over all thickness of the glasses composing the negative should also be given."

This little calculator is suitable for any form of telephoto lens, and so long as the negative lens remains the same, it needs only one graduation for any number of positive lenses. Where different negative lenses are used extra scales can be provided, at a cost of a shilling each, on the one calculator.

The scale is used by extending the camera to the desired magnification as shown by the calculator, and then focussing the picture by means of the rack and pinion on the telephoto lens only. On the other hand, the intensity of the lens is found simply by multiplying the F No. of the positive lens by the number of magnifications shown on the calculator. To users of telephotographic lenses this appliance should prove a real convenience.

The Week's Meetings.

TUESDAY, AUGUST 31ST.

Kinning Park C.C. Club Meeting.
Nelson P.S. Gaslight Print Competition.
Nelson C.C. "Intensification and Reduction." L. Asbworth.

WEDNESDAY, SEPTEMBER 1ST.

U. Stereoscopic S. "Separation and Exaggeration." R. Barrow.
Everton C.C. "Photography of Flowers." R. Wright.
Rugby P.S. Harborough Parva.

THURSDAY, SEPTEMBER 2ND.

Northamptonshire N.H.S. & F.C. Upton and Kislingbury.
Tetbury C.C. Lasborough and Boxwell.
Hackney P.S. Outing.
Watford C.C. Lantern Slides.

SATURDAY, SEPTEMBER 4TH.

Small Heath P.S. Cannock Chase.
Kinning Park C.C. Houston.
Halifax C.C. Hardcastle Craggs.
Walthamstow P.S. Broxbourne.
Shettlestone & D.C.C. Strathblane and Blanefield.

SATURDAY, SEPTEMBER 4TH (*continued*).

Everton C.C. Bidstone Woods.
Chelsea & D.P.S. Esher and Claremont.
G.E.R. Mech. Inst. Tower Bridge.
Nelson P.S. Ramble.
Wallasey A.P.S. Hilbre Island.
Bradford P.S. Bolton Abbey.
Willesden Poly. P.S. Elstree.
Dennistoun A.P.A. Wishaw.
Rugby P.S. Monks Kirby.
Bristol P.C. Tortworth.
South Suburban P.S. Deptford and Greenwich.
Worthing C.C. Wiston.
South London P.S. Waltham Abbey.
Bowes Park & D.P.S. Colney Heath.

MONDAY, SEPTEMBER 6TH.

Kinning Park C.C. Committee Meeting.
Walthamstow P.S. "Cloud Taking, Making, and Faking." R. G. Rolfe.
Wallasey A.P.S. "Enlarging." Members.
Batley & D.P.S. Hay Beck.
Southampton C.C. Lantern Slide Competition.
South London P.S. "Night Photography." A. H. Blake.
Bowes Park & D.P.S. Composition. C. Peacock.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.



Pinhole Pictures.

Showing how excellent photographs may be taken without any lens at all, how a pinhole for the purpose can be made in a few minutes, how the exposure with it may be calculated, and describing the advantages and disadvantages of the pinhole.

By H. H. Fowler. Special to "Photography and Focus."

THE lens is usually the most costly part of the amateur photographer's outfit, yet, curiously enough, it is the one part which can be entirely dispensed with for many classes of work. Not that I would suggest that the money spent on a first-class lens is money thrown away; far from that. Former articles from my pen in *Photography*, and latterly in *Photography and Focus*, have shown the great advantages of a good lens over a bad one, and it would be absurd to contend that a good lens has not advantages over no lens at all. It has two, but *only two*.

One of these is its rapidity, and the other its power of giving critically fine definition. It has no more. In fact, if rapidity is not required, and an exposure of half an hour is as convenient as one of half a second, and if the best definition is not needed, all the advantages lie with the pinhole.

Nor must it be supposed from this that a pinhole picture is offensively blurry. It is often much less so than the picture given by a lens, and at no time need it be any more diffused or indistinct than the result which would be got by printing a perfectly sharp negative on a rough bromide or carbon paper. In fact, for prints half-plate size or over, it is quite possible for pinhole pictures to be mixed up with lens pictures without there being any noticeable difference between them on the score of definition.



A Portrait. *By G. Warr.*

How a Pinhole Forms an Image.

There need be nothing mysterious in the image which is given by a pinhole, since it is based on exactly the same principle as that given by a lens; in fact, a lens is merely an elaboration of the pinhole. We know that under ordinary conditions light may be said to travel in straight lines. If, therefore, we draw a square with a little hole left in the middle of one side, to represent the camera and pinhole in section, in front of it draw some object to represent the subject of the pinhole photograph, and from different parts of that subject draw straight lines all passing through the hole left in the square, and extending to the opposite side of the square, these lines representing pencils of light passing from the object to the plate, we shall see at once how it is that a pinhole can form an image, and how it comes about also that a pinhole image represents the object upside down.

Next, we may draw instead of a square camera, a camera twice as long, so that the light entering the pinhole has to travel much further to reach the plate, and we shall then see that any particular part of the object is now rendered twice as long as it was before, because the rays of light, represented by the straight lines, go on diverging until they reach the plate. So that, with a pinhole, we can get the image any size we wish merely by altering the camera extension, without moving the camera at all. We cannot do this with a lens, because there is only one extension at which the picture is sharp or in focus. With a pinhole there is no focus; the picture is always equally sharp, whatever the camera extension.

Another advantage which follows from this is that near and distant objects are always equally sharp in a pinhole picture. There is no want of depth of focus; in fact, its depth of focus is infinite.

Distortion, curvature of the lines, want of achromatism, and flare spot are other lens defects, which are unknown with the pinhole.

The Real Advantage of a Pinhole.

It is right to point out these advantages, which are possessed by the pinhole; but it is also only fair to say that in themselves no photographer would consider that they outweigh the advantages offered by the lens. Were they the only merits of the pinhole, it is very doubtful whether a single pinhole picture would ever be made.

The reason why the pinhole appeals to many pictorial workers is the character of the definition that is obtained with it. It is not by any means the aggressively fuzzy blur which results when a lens is used with its image quite out of focus. There is a reasonable degree of definition everywhere; there is no mistaking what any part of the picture is intended to represent; there is no loss of "texture." All that has happened is a general softening of the outlines,

which prevents harshness without killing all the detail. It is not possible to get the same effect with a properly corrected lens by any dodging whatever in focussing it. The character of the definition given by a pinhole is peculiar to it. It is approached by that given by some uncorrected lenses, but not equalled.

All pictures made with lenses favour one plane more than another, and it is only with the pinhole that the same degree of softness is extended over near and far objects alike. It is this, coupled with the fact that the extent of that softness is under complete control, which constitutes the great merit of the pinhole for pictorial work. To vary the softness all we have to do is to change the pinhole, using a very small hole for the greatest sharpness, or a larger one if we want more diffusion.

Making the Pinhole

Let us now turn to the pinhole in actual practice, and see how the photographer who wants to try pinhole work can do so. He need be at no outlay at all, for everything required can be found in any household.

The first requisite will be a piece of card or wood which may be used to close the opening in the camera front when the lens is removed. A simple way of closing this is to cut a circle of stout card or thin wood, so as to fit the opening in the lens flange as accurately as possible, and then to glue on the front of that a circle of card about half an inch larger in diameter. If this is then well blacked with dead black, it will make a light-tight fit in the flange, and yet be instantly removable when we want to use the lens. In the middle of this should be an opening about a quarter of an inch in diameter, over which is to be fastened the "pinhole." Actually, the "pinhole" is never made with a pin, but with a needle, as needles being of standard size, it is easy to know what is the diameter of the hole when made. The best material is a morsel of thin sheet brass, such as is used for stencils. It may be hammered as thin as possible, and should then have a small hole pricked in it with the point of a No. 11 needle. With fine emery paper, the brass must then be cleaned on both sides, putting the needle into the hole, so as to push the burr out, and then removing this with the emery, putting the needle in again, and so on, repeating the operations until at last there is a perfectly clear, smooth, round hole through which the needle will just pass.



September Sunshine. *By W. E. Cork.*

The brass is then given a final rub with the emery, and is moistened with a drop of the sulphide solution used for toning bromide prints. This gives it a dark colour; and the metal is then placed over the opening in the mount which has been made for it, and fixed in position by pasting over it a piece of black paper with a $\frac{1}{4}$in. opening in the middle of it.

Exposure is Perfectly Simple.

The question of exposure with a pinhole may seem puzzling at first to the beginner, but actually it is very simple; it is based upon the f number of the hole, if such a term may be used, just as is the case with a lens. I have suggested that a No. 11 needle should be used for the first attempts at pinhole work. This makes a hole about the fifty-fifth part of an inch in diameter, so that with a camera extension of one inch such a pinhole may be said to be working at f/55. Here is a little table which I have worked out and put in my notebook for use with a No. 11 needle hole. The first column gives the camera extension in inches, and the second gives the number by which the proper exposure with a lens at f/32 has to be multiplied in order to give the correct exposure with that hole and that number of inches extension:

Inches extension.	Multiplier.	
3 ...	30	
4 ...	50	
5 ...	75	
6 ...	100	(2)
7 ...	150	($2\frac{1}{2}$)
8 ...	190	(3)
9 ...	250	(4)
10 ...	300	(5)
11 ...	350	(6)
12 ...	400	(7)
13 ...	500	(8)
14 ...	600	(10)

The exposure for f/32 is ascertained by means of an exposure meter, and is usually given in seconds. Instead of multiplying by some of these figures, therefore, which are rather large, it is my practice to multiply by the smaller figures, in brackets, and to treat the result as *minutes*.

An example will serve to make the method quite clear. We will suppose that the camera is set up and arranged on some landscape subject, that the light is measured with the exposure meter, and the correct exposure is found to be for that subject and plate 3 seconds for f/32. The camera extension is measured, and the distance from the pinhole to the plate is found to be 11 inches. I multiply the number of *seconds* 3 by 6 (the number given in brackets in the table against 11 inches), and the result 18 is the number of *minutes* exposure to be given.

The figures given in the table are approximations only, the nearest round numbers having been selected for the sake of convenience in multiplying. But they have stood the test of actual work in the field, and will be found to be all that is necessary. If any reader wishes to carry the calculations beyond 14 inches, all he has to do is to multiply the number of inches, whatever they may be, by themselves, and divide by 1,024, to get the multiplier, dividing this again by 60 to get the bracketed figure.

Sighting the Subject.

When first the photographer tries to use the pinhole on his camera for photographic purposes, he will find that the ordinary plan of arranging the subject on the ground-glass is not practicable. The picture is too dark to be seen. To remedy this, a second pinhole may be provided, with an opening much larger than that of the one which is to be used to take the photograph, and the subject arranged with this. But even then the light admitted cannot be very great, and at its best the method is not very satisfactory.

The plan which I have found most satisfactory and very convenient in practice is to remove the ground-glass from the camera entirely. There is no need to carry it at all, unless a lens is taken, the mere frame in which the focussing screen is held being all that is needed. The camera is turned with its back to the subject selected, and is carefully levelled. The eye is then put to the pinhole, or to a larger one, which may be substituted, and the view is seen framed in the opening which the ground-glass once occupied. By racking the camera in or out, more or less of the subject is seen in the opening, and this is done until exactly what is to come upon the plate is seen surrounded by the frame of the focussing screen. When this is the case, the camera extension is not altered again. Looking along the sharp angle at one side or other of the baseboard, whichever happens to be the more convenient, a sight of some distant object is taken which is exactly in a line with that angle, and the camera is then turned bodily round on the tripod until the same distant object is in a line again with the angle of the baseboard, but this time, of course, the camera faces the subject. What was then seen in the focussing screen opening will then fall on the plate. The operation takes much less time to carry out than it does to describe, and is very simple.



Sunshine and Breeze. *A Pinhole Photograph.* *By E. S. Maples.*

The simplest way to determine the exposure is to have the baseboard of the camera marked with inches, so that the extension can be seen at a glance. I have not found any need for a cap for the pinhole, as the exposures are long enough to allow the shutter of the dark slide itself to be used for exposing. There is no fear of any movement showing from the shaking of the camera in drawing out the shutter of the dark slide.

It is said by some authorities that there is a certain definite extension of the camera which is best suited for each particular size of needle hole. It may be so in theory, but in practice the amateur will not find that there is any such limitation imposed upon his work. It will be quite sufficient if, using a No. 11 needle hole on any camera up to 12 by 10, he allows the extension to be governed solely by what he wants to appear on his plate. He may close the camera up to four inches or extend it to twenty, and will not find any appreciable difference in the character of the definition in the two cases.

Wide-angle Pictures.

Provided the metal in which the hole is pierced is thin enough, the pinhole may be used for quite wide-angle pictures—wider, in fact, than can be got with most wide-angle lenses. The only limitation seems to be the falling off in the illumination towards the edges of the plate, if it is too near the pinhole. I do not look upon the wide-angle capabilities of the pinhole as one of its advantages. Wide angles are only needed in technical photography, where the best possible definition is required, and where the exposures usually have to be kept as short as possible. For pictorial work, which constitutes, after all, the chief application of the pinhole, it is narrow-angle pictures that are almost always wanted—pictures wherein the plate is at least as far as its diagonal from the pinhole, often much more.

The chief use of the pinhole will be found in landscape and architecture, and it is especially in landscape work that the peculiar character of the definition which it gives will be found most effective. Pinholes have been used for portraiture and for enlarging, but the results seem to be curiosities more than anything else.

I have only dealt with the use of one pinhole, that made with a No. 11 needle, because I have found that to do all that is required in ordinary work, and the use of a single hole makes the exposure problem much simpler.



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A CRITICAL CAUSERIE

Concerning some Photographs by Beginners

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut throat banaits in the path of fame."—BURNS

MAUPASSANT, the great story-writer, once expressed the following view of art: "Not to reason overmuch; to observe life intently . . . to see with one's own eyes and not with the masters'; to find a fresh significance in things . . . and to express this in a personal manner."

He was alluding to literature, of course; but all arts spring at bottom from the same principles; and there is hardly a word of his intensely interesting definition which might not be applied even to so young an art as that of pictorial photography.

"Not to reason overmuch" sounds a strange doctrine, at first. A certain critic, expounding this, says: "When Maupassant advises the young writer not to reason overmuch, he implies that the force of the thing in itself and of its atmosphere, which art conveys, is impaired by any obtrusive desire of a writer to play Providence to his readers." This is only one facet of the truth which Maupassant enunciated; but it will pass muster.



The Last of the Group. *By D. Matthews.*

Now, the "playing of Providence" may not be very prominent in ordinary pictorial camera products; nevertheless it is there. A literal statement of beauty—a beautiful scene, a decorative arrangement, a striking and characteristic portrait, or what not—in actual practice rarely satisfies the advanced pictorialist. He insists on playing



Sunlight through the Elms. *By A. J. G.*

Providence by "emphasising" here or "subduing" there; and his aim is to make clear the meaning, the moral, of his idea. Mostly he is right in so doing; but often he over-acts the part of Providence, and tells us something which we could quite well have seen for ourselves. Thus our attention is distracted from the subject of the picture to the bias or the skill with which its maker has played Providence in pointing it out.

Beginners rarely commit this fault, to their credit be it said. Oftener they tend to err on the side of sheer naiveté. Three examples of this naiveté are reproduced herewith: "Sunlight through the Elms," "The Last of the



Reflections



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Group," and "Reflections." In none of these has there been any visible "overmuch reasoning." The photographer has seen a simple subject, and simply snapped it, and then, so to speak, left it to stand on its own legs. "Take it or leave it," he seems to say, in each case; "I make no comment on my picture: I leave it to you to discover its merit, if it has any."

This is a rather admirable attitude, and each of our trio of ultra-simple pictures has a sort of value. "Reflections" is superficially the best: it seems at first sight to have more in it than its companions, and is superior technically. Still, it is the least unaffected of the three. There is more playing Providence in this one than in the others. There has been omission—the deliberate and, as I have hinted, the somewhat affected omission of the sky, so as to emphasise the point that the photographer was concerned with the reflections, and the reflections alone. All the same, the print is pleasing; and if we had not been able fortuitously to place it side by side with these others we should, I think, have called it wholly simple and unstrained.

I am inclined to maintain that "The Last of the Group" is the best of these three pictures. It is baldly honest, and that is a merit I grow fonder of every day. I may be told that this picture has no composition. It certainly hasn't much. Nevertheless, it has that without which composition is worthless—it has a recognisable subject.

Plenty of people would not have thought the subject worth a plate. They are welcome to their opinion; and I don't say that I might not share it. But not a soul could possibly mistake what the photographer was driving at, or miss his intention. We have all seen just such lonely and rather scraggy trees by some Yorkshire or Scottish or Welsh or Devon roadside. We are all at home with this view, and we are all able to appreciate, if not to applaud, the fact that the photographer has, in Maupassant's words, "found a fresh significance" in this theme, and not been ashamed to announce his discovery in a picture.

"Sunlight through the Elms" does not impress me much, for I am spoilt for any beauty it may possess by its poor technique. It is very harsh, and this is due perhaps to under-exposure and over-development—not, I think, to any deliberate intention on the photographer's part to "express" this scene "in a personal manner."

Imperfect mastery of the tools of one's craft, and consequent fudging and muddling, never expresses any real personality, except the personality of incompetence, which is a personality the world doesn't count of much value. However, in so far as this worker has observed a simple theme and tried (if not succeeded) to express it unostentatiously, he is to be praised. His "reasoning" should be devoted to exposure and development, however, for the present; and there can be, I assure him, no "overmuch" in the process.

There has been, I fancy, a shade too much reasoning in the picture entitled "A Silhouette"; and it is betrayed by that moon (or is it a sun?) which so conveniently explains and excuses the blackness of the landscape. The inclusion of that round wafer of whiteness was playing Providence with a vengeance; and it is because we feel this that we resent it. It is a case, in short, of over-emphasis. The silhouette of the solitary and straggling tree which, in the words of the poet, "waves its dark fingers mournfully," was striking enough in itself: we did not need that stagey moon to rub it in.

The photographer may retort that he has expressed his notion of a beautiful scene "in a personal manner" by the aid of that moon; but, if so, I must reply that his vision is too obvious. So far from having found "a fresh significance in things," he has gone out of his way to give an old and stale and theatrical significance to what was, before he introduced the moon, a pleasantly new thing, fully charged, already, with plenty of significance of its own.

"A Rainy Day on the River" is a trifle more complex in feeling and composition than any of the four previous examples; but achieves its success so candidly and so well that I reproduce it, notwithstanding the fact that a close examination of the print leads me to the sad conclusion that the photographer shook his camera at the moment of exposure—a fault ordinarily unforgivable. But at least that was not due to "reasoning overmuch." There is a certain modicum of reasoning discernible in the composition, which looks deliberate, and is really thoroughly sound; but the choice of



A Rainy Day on the River. *By William Coupe.*



A Silhouette. *By E. S. Maples.*

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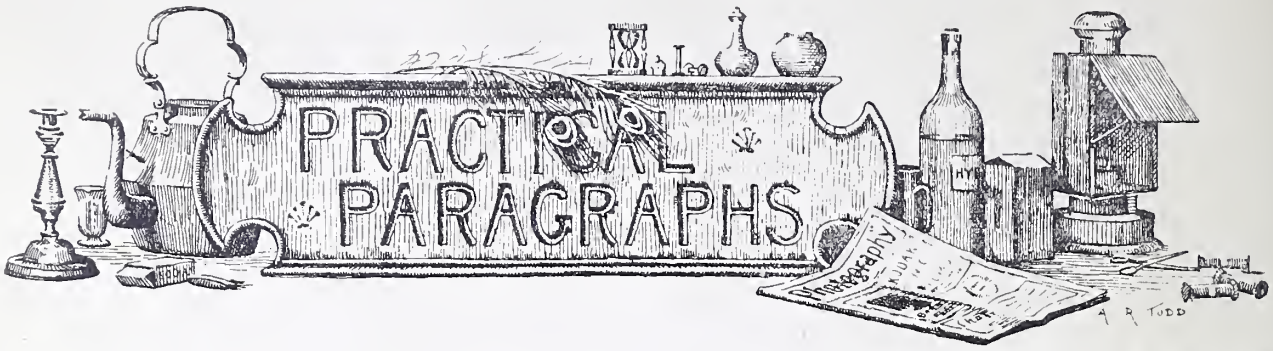
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the theme was, one may guess, practically instinctive.

"I love a tree better than a man," said Beethoven; and, speaking of the fields and of the woods, "Here is no envy, no deceit." That is the spirit which seems to me to hover round the five pictures discussed this week; and that is the spirit which, if imbued in the picture-maker, makes it needless for him to "reason overmuch." For he *knows* when he has found a fine and simple and newly-significant theme: he has no hesitation about it: and all he requires is a mastery of craftsmanship, to enable him to express the vision, whatever it is, with the camera. With this craftsmanship he may play Providence, in a sense; but very little playing of Providence is needed—be sure of that—with the pictures of those who, in all humbleness and sincerity, "see with their own eyes, not with the masters'."



CURING DISTORTION.

If some subject containing straight lines is photographed with a single lens it is well-known that the lines which come near the edges of the plate may be curved. If this has happened to a serious extent with a subject which cannot easily be photographed a second time, it is quite possible to get prints, or preferably enlargements, from the negative in which the distortion is entirely got rid of. To do this a transparency is made from the negative by one of the recognised methods, and this is set up and illuminated from behind, as in making an enlarged negative. It is then rephotographed, using the same lens as was used when the original negative was made. Only, in this case, the lens must be turned round, so that the stop and not the glass is next the plate, and the stop will have to be put nearer to the lens. This is easiest done by fitting a temporary stop inside the other. The exact distance of the stop from the lens must be settled by trial, after noting the appearance of the image on the screen. The nearer the stop is to the lens the greater will be its effect in straightening the curved lines, until we reach a point when any further movement of the stop will bend them in the other direction. As soon as they are seen on the focussing screen to be quite straight, a plate may be exposed on the transparency, which, when developed in the usual way, will give us a fresh negative, identical in all respects with the first, except that the curving of the straight lines will have vanished.

* * *

PENCIL WORK ON BROMIDE PRINTS.

When a good deal of pencil work has been done on the surface of a bromide or gaslight print, one hardly likes to leave it on the surface, so that if ever it becomes necessary to clean the print with breadcrumb or indiarubber the whole of the pencil will be removed and have to be done again. To prevent this, it is my practice to hold the print when finished for a few seconds in the steam from a kettle. The best distance is four or five inches from the spout; if it is too far the pencil work is not fixed, while if too near the print may run. A trial with a bit of the trimmed edge or with a waste print will soon show the correct distance. It does not need to be held there for more than ten seconds at the most. The pencil work will then be found to be indelibly fixed.—W. T. Horsfall.

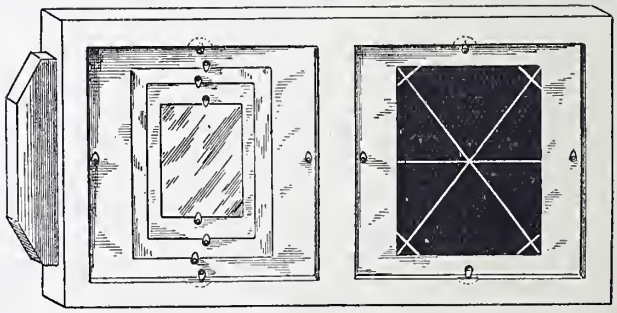
* * *

PLATINUM RESIDUES.

The greater part of the platinum in the platinotype process is removed in the developer; and although it hardly pays to keep the acid baths for the sake of the residues, the developer itself is well worth keeping, if the process is at all extensively employed. To recover the platinum, for each pint of the developer five ounces of a saturated solution of iron sulphate should be added, and the liquid poured into a flask and heated to boiling. The metallic platinum separates out as a black precipitate, and may be removed from the liquid by filtration or by decanting.

FOCUSSING IN ENLARGING.

The following method for facilitating the operation of focussing in enlarging is given by Mr. Walter A. Scott in "Camera Craft." The negative carrier of the enlarger is made double, somewhat after the style of a repeating back, both being provided with the usual carriers, as shown below. One division is to receive the negative (or transparency), while the other accommodates a glass plate (of the same size as the negative), coated with asphaltum varnish or other opaque medium. This coating is allowed to dry, and then is ruled with an awl or other sharp instrument, cutting through the opaque medium and leaving clean-cut transparent lines, as shown in the diagram. In practice the enlargement is first arranged to the proper size on the easel, and approximate sharpness secured. Then the negative carrier is slid back until the opaque plate, with its transparent lines, is in the position vacated by the negative. The transparent lines will then be projected upon the easel. The focus is



carefully adjusted until the projected image of the lines is absolutely sharp, directing attention solely to the point where they cross in the centre. A glance at the crossings in the corners should now show equal sharpness with the centre crossing, if the plate, lens, and easel all occupy parallel planes, as will be the case if the apparatus is properly constructed and the lens an anastigmat. It seems hardly necessary to say so, but the coated side of the opaque plate should face the lens, as does the film side of the negative from which the enlargement is to be made. After securing absolute sharpness, it only remains to slide the carrier forward to its original position, so that the negative (or transparency) is returned to the printing position, and make the exposure in the usual manner. It is, of course, absolutely essential that both the film side of the negative and the coated side of the focussing plate shall both be pushed up to the same rebate, so as to be exactly the same distance from the lens. The plate so prepared is useful also as giving some idea of the flatness of field of the lens that is in use. For pictorial purposes, it is seldom desirable to make the enlargement absolutely sharp, and, in this class of work, the device makes it possible to determine accurately the degree of diffusion of focus.

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"The time has come, the Walrus said, to talk of many things."

I SHOULD like to give notice now that if ever any philanthropic individual founds a society for the prevention of cruelty to pifflers I wish to join it. I should like my name to be whacked down first on the list, and as a life member too. It is a cruel thing that a harmless little crank like myself should be deprived of a holiday for nearly seven years. No doubt the editor, in his funny way, would remark that my life is one long holiday, and that I should regard the privilege and honour of filling this page every week as the chief delight and blessing of my existence.

* * *

Very well. I won't argue about it. I only hope that if there is any truth in the theory of metempsychosis I may yet be transformed into an editor, and R. C. B. into a weekly piffler. Then he will understand. He will have an opportunity to put into practice that pleasing notion of his that it would be a good plan to sit down and dash off a dozen pages, so as to have nothing further to bother about for three months. There was a man who tried the experiment of eating seven breakfasts on Sunday because he had to leave home early every morning during the week. It answered in a way. He did not have to bother about a hurried breakfast on the Monday morning.

* * *

He was dead.

* * *

For the last ten days I have seen the sun shine from a blue and cloudless sky. I have had nothing to do but to do nothing, with the ghastly exception of producing two of these pages. The writing of the first was a rude and unwelcome interruption to a particularly congenial occupation. With short intervals for refreshment and one long one for much-needed sleep I had been lying for no less than forty-eight hours in a blissful pillowed chair under some trees in a pleasant garden.

* * *

Some will perhaps say that although I got up to write I continued to lie. I will treat such remarks with the contempt they deserve.

* * *

Now my sojourn in that chair answered several useful purposes. In the first place my dimensions and contour were considerably modified, owing to the excrescences caused by the attentions of a variety of winged and creeping things with ability to sting or bite. In the second place my unusual immobility afforded an opportunity to a friend to photograph me, with the intention, as he cheerfully remarked, of adding a touch of comic relief to my obituary notice. In the ordinary way I am so phenomenally active that it is only possible to photograph me with a high-speed focal plane shutter, and the results so obtained are hardly good enough even for an obituary notice. I take this opportunity of explaining that when that photograph is published the accessories introduced, namely, a bottle of whiskey, a soda syphon, and a glass, were the exclusive property of the aforementioned photographer himself, and were nothing to do with me at all.

* * *

But the greatest benefit I derived from my sub-arborean rest was to have swept from my mind any small remaining shred of respect for the work of naturalist photographers. I always had my suspicions of some of their achievements, and now I have definitely arrived at the conclusion that the majority of the results they secure are dead easy. When we come to think of it, the evidence as to the difficulties they have encountered and overcome is only their own, and it is quite uncorroborated by outside and uninterested testimony. We hear of a photographer disguising himself as a cow, and wandering about the woods and wolds for weeks, till all the birds and beetles have their suspicions lulled to sleep, and are thereupon photographed by the spurious bovine. Other nature enthusiasts declare that they have concealed themselves for days at a time, buried up to the eyebrows in a dunghill, in order to secure an indifferent snap shot of an insignificant bird that occasionally paid a visit to the unsavoury pile. Others have, according to their own account, spent years in motionless discomfort, over their heads in some stream or pool, to get a photograph of the tufted reed-wobbler, or some other bird that most people have never heard of.

* * *

Then there are those photographs of sea birds that are supposed to be the result of patient stalking and perilous climbs. I believe that as a matter of fact you can easily walk up to these silly fowl and shut your iris diaphragm over their beaks without their wagging an eyebrow. Not that I suppose birds to have eyebrows, but that they wouldn't wag them if they had.

* * *

I will give my reasons for thus depreciating the hitherto highly-praised work of these nature men with a camera. In the garden where I lounged lived a robin. It would sound more impressive, no doubt, to give his proper ornithological cognomen, but I don't know it; so I must call him a robin. He would hop around a bit of the lawn, making rapid pecks at the ground; then he would perch on a particular twig of a rose bush. This routine he repeated over and over again —hop, peck, perch; hop, peck, perch. I concluded he did not do all that pecking for nothing, so with rare energy I rolled out of my chair and crawled leisurely to the pecking ground. There was an ant's nest there. Every time the robin bobbed his head an ant went on the death roll. Now had I had the strength and inclination to reach for my camera it would have been as easy as pie to hide it behind a geranium and get some photographs of a robin eating ants and a robin perching on a rose bush. I could then have written an article enlarging on the patience, knowledge and dexterity necessary to secure such striking pictures of wild bird life, and if I had added to the series one or two photographs of worms or caterpillars I should very likely have had my biography and examples of my beautiful nature studies published in one of the magazines.

* * *

Well, so much for the last page I wrote. This present one I am scrawling seated on a rock, with the wide blue sea in front of me. The sea is magnificent. Not so the rock. It may be picturesque as a foreground, but it makes an indifferent seat on account of the limpets. I would not sit on the limpets but for the fact that they keep me from falling asleep, in which case my copy will not be in time for the mail boat; and if I do not catch that boat I shall catch it.

THE WALRUS.

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Large Prints from Small Negatives. I.

The advantages of different methods compared: hints on making transparencies and enlarged negatives: putting clouds into enlarged negatives: carbon v. dry plate transparencies.

THE approach of the exhibition season and the preparation of work for the various shows raises the question in the minds of many amateurs, What is the best process for making a large print from a small negative? The question is now of far more interest than formerly. Many of our readers will remember that not so very many years ago the great proportion of exhibited work was done direct on large size plates. It was no uncommon thing to find landscape photographers who used 15 by 12 cameras in the field, and even larger sizes were occasionally met with, while large direct work in the studio was an everyday occurrence.

The improvements and modifications in bromide paper work have led of late years to an enormous increase in the popularity of small cameras, and these have now been so far improved that almost all inducement to use large plates when large pictures are to be made has been removed.

In fact, paradoxical as it may sound, the use of smaller plates has actually increased the size of exhibition pictures, for, whereas when most large work was done direct, 12 by 10 and 15 by 12 were the popular exhibition sizes, those being the largest cameras most exhibitors cared to use, now that it has been found quite easy to get good enlargements greater than this from negatives of quarter-plate size or less, the restriction formerly imposed by the weight of the camera has been removed, and the average size of exhibition prints has increased accordingly.

The Two Alternatives

The amateur with a quarter-plate negative from which he wishes to obtain an exhibition print finds himself confronted with several processes by which he can do so, but they may all be divided into two groups —(1) those which involve the making of an enlarged negative and (2) those which do not—and it is with a view to help him to decide between these two alternatives and their sub-divisions that this article is written.

Which will give the best result? is a question that may be bluntly put, but which cannot be quite as bluntly answered, since much turns on the particular meaning which is to be attached for the time being to the word best.

The enlarged negative processes allow us to use any printing process we will, and are compulsory if the exhibition print is to be on any form of P.O.P., salted paper, carbon, platinum, oil, or gum. The other class limits us to bromide, ozobrome, or bromoil; so that unless "the best" is to be obtained on one of these, and the subject may not be suitable to them, the enlarged negative is a necessity. On the other hand, there is an inevitable loss of quality in making an enlarged negative from which the direct enlarging processes are free.

The Loss of Quality in Copying.

A plain contact print from a negative reproduces the gradations of the original with very little loss or want of truth. But as soon as we start copying the plain print and making prints from the copy negative there is a loss, as our readers very well know. This same loss shows itself when an enlarged negative is made, however carefully each stage of the operation may be carried out.

To make an enlarged negative we first have to make a transparency or positive on glass. This may be

MEMORANDA *for the week.*

In this space we announce, as occasion arises, things which in our readers' interests they would do well to note.

done by contact on an ordinary or lantern plate or by the carbon process, using, preferably, special transparency tissue, collodionising the tissue after exposure, and squeegeeing it on to glass which has had a substratum of gelatine and chrome alum given to it. The process, although not difficult, is a little out of the ordinary, and so comparatively few amateur photographers employ it; but the loss of quality above referred to is certainly less with a carbon transparency than with one on a lantern or other plate. The transparency tissue, we may mention in passing, is not a necessity. It is more finely ground than other tissue, and contains a larger proportion of pigment to gelatine, but it is quite practicable to make carbon transparencies which leave nothing to be desired on "warm black" tissue.

Transparencies may be Reduced.

The photographer sometimes wants to make an enlarged negative from an original negative which is itself too large to go in the enlarging lantern. A five-inch condenser is, for example, quite large enough for a lantern slide, but will not take the whole of a quarter-plate. In such a case the transparency must be made on a plate, and not by the carbon process, as by making the transparency not by contact, but in the camera, we can reduce the size of the picture until it is small enough for the condenser to cover properly. Nor need there be any fear of loss of definition by so doing if all due care is taken.

The Character of Plate is Unimportant.

The actual plate used for making the transparency is not of any great importance. If a lot are to be done, a lantern plate, which for convenience of judging the density should be developed to a black, and not to a warm tone, may be used, but it is not a necessity, and transparencies in every way suitable for the purpose may be made on ordinary or even on extra rapid plates. The last are not quite so suitable, as they may possibly be a little coarser in grain than the ordinary plates, and, not possessing so great a latitude, the correct exposure is not so easily hit upon; but their use is quite practical.

What is important is that, whatever plate is selected, it should be backed. This is of the most importance with lantern or transparency plates, as the emulsion on these is less opaque than the coating on an ordinary plate, and halation is therefore facilitated.

Those who have an enlarging camera which will take a fairly large plate, instead of working with a transparency that is smaller than the original negative, may use one that is larger, making the total enlargement in two stages, as it were. This method has great advantages where there is a good deal of hand work wanted, as this can then be conveniently applied both in making the enlarged transparency and then, again, in making the enlarged negative from this. The introduction of clouds is made very easily in this way.

An Easy Way to put in Clouds.

The landscape transparency is first made, and then, after any transparent portions of it have been blocked out with black pigment, which may be applied to the glass side, this transparency is placed in contact with another plate, film to film, and, using the transparency as a mask, the cloud negative is enlarged on to this second plate. The plates are separated for development, and are then bound up together again in register, and an enlarged negative made from the two, which will then contain the clouds in their proper value for printing out.

This is one of the most convenient methods there is for introducing clouds, as the cloud transparency may be made over and over again until it is exactly the right depth for the purpose. If it should be necessary, the lower part of it may be reduced with ferricyanide and hypo, but it is quite easy to block out the first transparency so that the landscape portion of the cloud transparency shall be represented by clear glass.

The Best Kind of Transparency.

The character of transparency necessary for making an enlarged negative calls for a word or two of comment. It should not in the least resemble a good lantern slide. The latter should have its very highest lights represented by clear glass, or almost clear glass; but in the transparency there should be distinct deposit on them. This does not mean that the plate should be fogged. In fact, any parts of it which have not been exposed to the image on the negative should be quite clear. But there should have been something at least that has developed up even in the most opaque parts of the original negative, or there will be a loss of quality in the final result. Care, too, must be exercised not to get the transparency too dense. If it is at all on the thin side, we can compensate for it by developing the enlarged negative a little more, but we cannot compensate for an over-dense transparency.

The enlarged negative, like the transparency, may be made on an ordinary or on a lantern plate. The general preference seems to be for an ordinary plate; this also should be backed. The enlarged negative must never appear to be as vigorous as the original small negative, or it will certainly give prints that are too hard. The degree of contrast may actually be the same, but it will not look the same. The reason for this is said to be that a small negative always looks more dense because the shadows and high lights are nearer together, and therefore are seen more directly in contrast with each other.

R. C. B.



Photography of the Sun and Moon.

The article by Rev. J. Cotton (see page 192) deals with a subject not often discussed in photographic journals, since comparatively few amateur photographers possess an astronomical telescope also, with which they can attempt celestial photography. Some

do so, however, and there may be others who have the telescope but no camera who may be interested in reading how the latter can be constructed. A telescope is by no means a necessity for work of this character, and some excellent photographs of both sun and moon have been produced with nothing more elaborate than an ordinary camera provided with a telephoto lens. The lens has to be used at a high magnification, or the little discs which represent those bodies will be very small; but the very narrow angle which is included makes the telephoto lens a very suitable piece of apparatus for the purpose. Focussing has to be most carefully done, and some form of extension hood of cardboard, well blackened inside, should be fitted to the lens.

Stained Negatives on Ortho. Plates.

Users of orthochromatic plates may have noticed that the film of the finished negative sometimes has a slight pinkish stain, and we now and again get such negatives sent to us under the impression that this stain is due to some error in the manipulation. This is not the case, the stain being that left by the dye which is used to render the emulsion orthochromatic. This dye, which is generally washed out or bleached out in the development and after processes, sometimes does not yield to these, and shows even in the finished negative. But it is never present in sufficient intensity to do any harm, or even appreciably to delay the printing, and may therefore be disregarded. A two or three per cent. solution of sodium sulphite, acidified with a little sulphuric or citric acid, makes a bath which speedily removes the last traces of it, or the acid-alum clearing bath may be used if it is to be eliminated. But such treatment is needless, and all the more so since the mere exposure of the negative to light will cause the stain to fain.

Hypo Eliminators.

A remark made by "Camera" in the "Glasgow Evening Times" puts very pithily a fact which the photographer would do well not to forget. "The best hypo eliminator," he writes, "in the early stages is hypo itself." The meaning of this is that it is not sufficient to put the negative into hypo until the white appearance at the back has entirely gone, indicating that the silver bromide has all been converted into silver hyposulphite, but that when that stage has been reached the negative must still be left in the hypo for some little time in order that the silver hyposulphite may itself be washed out of the film. It can be washed out with hypo solution, but cannot be washed out with plain water. For this reason, then, we are told to leave the negative in the fixing bath until the whiteness has all gone, and for *as long again*. This allows time for the silver salt to be got out of the film, and then, when this is accomplished, mere washing in water will extract the always soluble sodium hyposulphite and leave the negative in a permanent condition.

MY NEIGHBOUR.

I was really very happy till my next door neighbour came,
And he chanced to spot upon my window sill a printing frame;
For that was the beginning, and I don't know how t'will end,
As his object seems to borrow things which I object to lend.

He comes round with assurance, just as boldly as can be,
To borrow my developer, my plates, or P.O.P.;
My push-pins, my enlarger, my glass measures, or my rack,
But, when I see the backs of them, I seldom see them back.

Perchance if he returns a thing, it's oft in such a guise,
That even when he says it's mine it hard to recognise;
My washer's choked with crumpled prints, my rocker will not rock,
And no amount of shaking will restart my dark room clock.

Then some of my accessories he oft treats with abuse—
He doesn't put them strictly to a photographic use;
A twelve-ten porcelain dish of mine, whose lip he chipped clean off,
He's using in his back yard as a chicken's drinking trough.

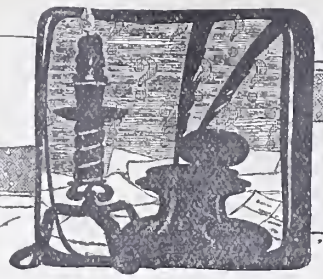
He built a sort of outhouse; on the roof, instead of slates,
He has fixed, to keep the rain out, nearly all my ferro' plates;
But, for unadulterated cheek, I thought it most immense,
When he utilised my "hopper" for the painting of his fence.

Two Items to be Noted.

NEXT week's issue will contain the first portion of a paper on portraiture which was read by Mr. Nelson Jennings at the Norwich and District Camera Club. Mr. Jennings, who has illustrated his paper for its appearance in "Photography and Focus," goes into his subject very thoroughly, and will be found very helpful to those amateurs to whom portrait work appeals. Mr. John Sterry, at present in Australia, communicates "a simple method of control in the development of bromide and gaslight papers,

EXACT EXPOSURE NO LONGER NEEDED."

QUESTIONS & REPLIES



REGULATIONS—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must he enclosed. (2) The full name and address in addition to a *nom-de-plume* must he given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may he sent for criticism, hut a separate coupon must he sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will he dealt with hy post, and then only when they concern apparatus actnally in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must he enclosed.

C. SWYER (Brookland).—We have handed your letter to onr advertisement department.

G. WASHINGTON (Sunningdale).—We are informed that the print has now been returned.

G. PATTRICK (Consett).—We have handed your card to our puhlishers. It is not an editorial matte.

H. HINOHLIFFE (Leeds).—The only article "in the early part of this year" was in our issue for March 30th.

KIT (Nelson).—The lens is not of any recognisahle make; presumahly it is a cheap French rapid rectilinear.

W. ARTHUR KEA (Glasgow).—"Neutral gold and potassium chloride" is one double salt, not two separate chemicals.

H. PRESTON (Bombay).—The spots are due to impurity of some kind, but what that impurity is we have no means of judging.

J. H. SMITH (Commercial Road).—The honorary secretary of the Hackney Photographic Society is Mr. Walter Selfe, 70, Paragon Road, Hackney.

STINT (Haverstock Hill).—Please state precisely what your difficulty is. We cannot spare the space in this column to describe in detail the manufacture of a view finder.

HYPONITE (Nightingale Lane).—"Hypono" was reviewed in *Photography and Focus*, May 26th, 1908, and more briefly June 1st, 1909. Its composition is not made public. It is satisfactory in use.

MERU (Dorking).—There is no way of removing the marks of the blistering which was due, we presume, to the solution of ammonia being too strong to use in such warm weather. Ten ounces of water would not have been too much.

CHELTONIEA (Cheltenham).—We note your suggestion; hut we think that your shutter must he quite unreliahle, or else the snow scenes to which you refer must have near objects in deep shadow. The best solution of the problem is the use of an exposure meter.

UZZER (Ound'e).—We think that it would not have any injurious effect on their permanence, but have no definite information to go upon. If it were our case we should resort to washing if we wanted to feel quite sure on the point but we may be doing it an injustice.

J. S. HOWDEN (Liverpool).—Our publishers are dealing with the order. Does it not occur to you that if the things "never act act as they say," there is a strong probability that your own manipulation is at fault. The apparatus in our hands proved quite satisfactory.

WALTEA KEATING (Clontarf).—Better not rely on books of recipes. The process has only a scientific interest and is in no sense practical. It is a mere curiosity, hut if you succeed in hitting the right expo.ure, which is much longer than you have been giving, you will get a result of sorts.

CLOVELLY (Dublin).—The disc must obscure mo e than half—the exact extent must be found by trial with the focussing screen. The largest stop that will give satisfactory definition should be used; but we can give no information as to exposure, as this is governed largely by the size of the disc and must be found hy trial.

MOOLIE (Hednesford). — The fastest plates to which you are accustomed must he used, and as long an exposure as the child will keep still for should be given. In the absence of fuller particulars this is all we can say; hut it is never possible to state the exposure in cases of this sort. You forget that it depends on all sorts of factors, which can only he taken into consideration hy someone on the spot.

CHICK (Leicester) asks how to blacken sheaths that have worn hright. *A.*—The method of blackening steel or iron is first to dip the metal, after thoroughly cleaning it, in a solution of copper sulphate, and then after washing it to immerse it in one of liver of sulphur. But the actual details are more or less a trade secret, and home-blackened work never has the excellent finish which the maker secures.

T. J. MALCOLMSON (Lurgan).—We know of no book on the subject.

A. BURGESS, JUN. (Birmingham).—The photograph, we are sorry to say, has no photographic interest.

R.M.H. (Sheffield).—There is an article this week, and the various types have been reviewed as they came on the market.

W. J. C. ARMSTRONG (Crowle).—We have to thank you for letting us see the prints, which, however, we are sorry to say we cannot use.

H. LEVERTON (Wadsley Bridge).—We are much obliged for sending us the cutting; hut the print was not entered for the beginners' competition, but in one of the special subject competitions.

COLOURLESS (Haverstock Hill).—Johnson's hook on "Retouching and Colouring Photographs," price 2s., or post free 2s. 4d., is the hest we know on the subject. Special colours for photographs are sold by most of the big dealers.

F.J.G. (Bucknall).—We helieve that the buttons and frames for the Chicago Ferrotype Co.'s camera can he obtained from Messrs. Fallowfield, 146, Charing Cross Road, London, W.C. If not, you would prohably have to send to the makers.

BEGINNER (Holloway).—It is quite clear that you do not develo" for anything like long enough. You must continue until the whole surface except the edges has gone very dark. Go on increasing the time until you find you are getting the density you require.

ONE AND ALL (Canning Town).—For permission to photograph in Epping Forest, application must he made to the town clerk, Guildhall, London, E.C. There is no charge for the permit, hut the application should he accompanied hy a stamped envelope for reply.

G. A. MERRILL (Sheffield).—The exposure would not be in any way redneed by enclosing the space between the lens and the paper, which would not "concentrate all the light on the paper." Unless the lens is very dirty there should he very little light coming out into the room.

GAOUSE (Evanton).—If it is a had stain, nothing will remove it. A slight one can be got rid of hy immersing the negative for an hour or two in alum 1 ounce, citrie acid ¼ ounce, hot water 20 ounces. It is ready for use when cold. The negative must then he well washed.

TOURIST (Birmingham).—When the camera is drawn out to the infinity mark it is virtually a fixed focus camera and may be used as such for ordinary subjects. Near objects, unless focussed, will he out of focus just as they would be in the case of a "fixed focus" camera.

H. KING (St. Leonards).—It is possible but not very practical to use a magic lantern, and if one is to be made it would probably he easier to start from the beginning. "Practical Enlarging," hy Hodges, price 1s. nett, has a description. It is out of print, but a copy could probahly he picked up second-hand.

E. S. MAPLES (Huddersfield).—We are afraid that there is nothing for it but to give the plates a soaking in a quarter per cent. solution of hichromate, then wash them in running water for a quarter of an hour, and then ascertain their speed by actual trial. It will probably be from one-tenth to one-twentieth what it was before treatment, which is given in an old list we have as 16 Watkins. As far as your p.s. is concerned, the matter is, unfortunately, one in which we have not got a free hand, or we should do as you suggest.

ROYAL NAVY (Plymouth).—Your best plan, we think, will he to adopt that which we adopt, and use the developer recommended hy the maker of the films, generally a pyro-soda one. We do not recommend slow development at any time, as it always brings with it a risk of fog; at the same time there is no harm in development taking half an hour and if the maker's developer is too quick it may be diluted with a weak (say one per cent.) solution of sodium sulphite until it is slowed dow.i to that extent. The fog you have been getting is no doubt due to this prolonged action. We do not know that acetone is better or worse than any other.

J.F. (High Wycombe).—Sensitised linen is not now made.

HERONITE (Herne Bay).—Our preference is for No. 2, but it is merely a personal opinion.

ENSYNA (Kilmarnock).—The formula was given on page 171 last week.

T. H. CAOW (Bletchley).—You can purohase the apparatus from Jonathan Fallowfield, 146, Charing Cross Road, London, W.C.

MINA (Wimbledon Park).—Ivory and Ivorine for miniatures are supplied by Greenherg and Sons, Water Lane, Ludgate Hill, London, E.C.

C.J.H. (Wood Green).—Brunswick black withstands the action of photographic chemicals as well as any varnish with which we are acquainted.

PROJECTION (Bishop's Stortford). — Certainly there seems to he no need to have the steps of the Aldis altered, unless the other lens should prove unsatisfactory.

MISS BARKER (Baker Street).—The negative has been returned. It looks as if it had been splashed with developer before heing fully immersed. We fear there is no remedy.

A.E.D. (Dundee).—Your only plan of finding out will be to send it to a firm of repairers or to the makers and ask them to quote. Not knowing what it requires, it is impossible for us to say about how much it will cost to overhaul it.

A.B.C. (Newmilns). — Apparatus for making "stickybacks" and full instructions can be got from Messrs. W. Butcher and Sons, Camera House, Farringdon Avenue, London, E.C., or from Jonathan Fallowfield, 146, Charing Cross Road, London, W.C.

W. G. ANDERSON (Aberdeen).—If at any time you care to send us a letter in a stamped envelope under cover, we shall he pleased to address it and send it on. It will then he open to the photographer to enter into negotiations if he feel disposed to do so.

E. M. HAYGARTH (Bournemouth).—All the prints for the July competition, which came to hand accompanied by stamped labels or wrappers have been returned. If yours have not come to hand, either they have miscarried or arrived late and will he dealt with with the August prints.

HUGH VERNON (Victoria, Australia).—As most of our competitions are announced four or five months ahead, competitors even 13,000 miles away can enter; and the rule as to coupons is relaxed to allow them to do so. But prints arriving after a competition has closed cannot he entered for it, wherever they come from, as the competition as soon as it is closed is judged forthwith.

GLOY (Mile End).—We are very glad to have been of assistance. None of the devices you mention will enable you to get large heads direct with satisfactory perspective. All that is meant by "portrait lens" in such cases is "very rapid lens." To get satisfactory perspective you must either be satisfied to get a small head, the whole picture being, say, about one-third as high as the focal length of the lens, or to get a long focus lens.

R. G. GLENDAY (Askrigg) has been photographing waterfalls and finds that if he exposes for the water the surroundings are under-exposed, while if he exposes for the surronndings the water is lost, and wants to know how to get the best result. *A.*—There is little to recommend, except to use the fastest plates and the widest aperture he can manage, and then give the shortest exposure which will not under-expose the plate. It is a difficulty inherent in that type of subject.

V.R.C. (Boksburg, Transvaal). — We cannot make out where you are wrong, as the lens has nothing to do with it, and so long as a stop of the same F number is used with each lens, each will require the same exposure. Perhaps you are not stopping down properly. The exposure can have nothing to do with the sharpness of the picture; this depends on proper focussing, and then on the use of a stop small enough for the subject. We do not see what we can add to the article to be of use.



THE SOUTHPORT PHOTOGRAPHIC Society holds an open exhibition towards the end of November.

THE NEW GALLERY. The exhibition of the Royal Photographic Society opens on Wednesday, the 22nd inst.

THE EXHIBITION of the Deutschen Photographen Vereines has just been held at Weimar. An excellent little illustrated catalogue was issued, price 50 pfg.

A CATALOGUE OF BIOSCOPES and accessories, including the well-known Beard regulators, carriers, and jets, has just been issued by Mr. R. R. Beard, of 10, Trafalgar Road, Old Kent Road, London, S.E.

THE SHEFFIELD PHOTOGRAPHIC SOCIETY holds its exhibition from April 5th to 9th, 1910, at the Montgomery Hall, Sheffield. Particulars can be obtained from Mr. John A. George, 14, Parade Chambers, Sheffield.

THE GUERNSEY PHOTOGRAPHIC SOCIETY. The July competition resulted in the following being the successful competitors: Class A—H. C. Le Mesurier (1), S. B. Dawson (2), Miss A. Head (very highly commended), and Mrs. Clarke (highly commended). Class B—E. N. de la Mare (1), J. T. Phillips (2), and G. W. S. Anderson (highly commended).

THE AMERICAN CONVENTION this year was held at Rochester, N.Y., the attendance running well up towards 2,000. A visit was paid to the Kodak works, where a number of those connected with the firm were told off to show the visitors round and help them to understand the various operations to be seen at that immense establishment. All these wore a label bearing the words, "Ask me. I belong here." Amongst the label bearers was Mr. George Eastman himself.

REDUCING LANTERN SLIDES. According to a writer in the "Photographische Welt" a lantern plate that has been over-exposed should be developed up until the picture has the required vigour, regardless of any clouding over of the high lights, and may then be reduced with a ferricyanide and hypo reducer, in which the proportion of hypo is very large while that of the ferricyanide is kept very low. Such a reducer, well diluted, will clear the high lights, says our contemporary, before attacking the shadows. It would be far better, however, in our opinion, to use the over-exposed plate merely as a guide to the exposure of a fresh one, which should need neither reduction nor any other after operation.

THE PHOTOGRAPHIC SALON, which is held this year at No. 5a, Pall Mall East, London, S.W., opens to the public on the 10th inst.

THE DUKINFIELD PHOTOGRAPHIC Society holds its exhibition on December 4th, 6th, and 7th. The society's darkroom has recently been done up and various improvements introduced.

A RETOUCHING HINT. The following method of giving a tooth to the surface of a plate, so that it can be made to take the point of a pencil, is quoted from the "Bulletin of Photography." A small lump of rosin is crushed and powdered on a glass plate, and is then mixed with about one-third its bulk of cigar ash. The ash neutralises the sticky character of the rosin. The mixture is placed in a bag of old, well washed muslin, and the bag is dabbed on the part to be retouched. A little of the powder settles on it, and is lightly rubbed with the finger tip. A surprisingly small quantity of the powder will be found sufficient to render it fit to take the pencil.

DEVELOPING BROMIDE PRINTS WITH A BRUSH. According to the "Bulletin of Photography" the following method will be found effective. The print, after exposure, should be placed in a dish a trifle larger than itself, and then soaked in water until it is limp. It is then drained, and the surface moisture removed with a clean blotter. The developer is made as follows:

A.

Hydrokinone	320 grains
Eikonogen	320 grains
Sodium sulphite ...	4 ounces
Citric acid	1 dram
Water	64 ounces

B.

Water	64 ounces
Potassium carbonate...	8 ounces
Sodium sulphite ...	2 ounces

Equal parts of A and B are taken and mixed with their own bulk of water with one-eighth of their bulk of glycerine. The dish is tilted at an angle of 30°, and the print is rapidly brushed over with the developer. The image appears slowly, and it is quite easy to bring out or to keep back portions as desired by the application of more or less of the developer.

ADULTERATED METOL. The "Photographic Times," quoting from the "Druggists' Circular," states that some of the metol now on the market is of a very impure form. Metol is the sulphate of methyl para-amidophenol, and the chief impurity is said to be para-amido-phenol sulphate, which is less efficient than the methyl compound. Solutions of the latter keep well. Paramidophenol sulphate, on the other hand, alters rapidly in solution, and weight for weight is far less efficient than metol. Its presence is easily detected by shaking about one gramme of the material with 2 or 3 c.c. of pure concentrated hydrochloric acid in which metol is perfectly soluble, and paramidophenol sulphate completely insoluble. If the substance does not entirely dissolve within a few minutes the presence of this impurity is indicated. Metol may also contain inorganic impurities, *e.g.*, sodium sulphite in appreciable quantities. Their presence may be detected by igniting a sample and weighing the residue. Pure commercial metol should not contain more than 0.5 per cent. of inorganic impurities. [The two-standard makes of metol on the British market, "Metol-Hauff" and "Metol Andresen," enjoy a reputation which is above suspicion, and if our readers see that they get one or the other of these, in their well-known capsuled bottles, there need be no fear of adulteration.—ED.]

A CORRECTION. The Editor of the "Yorkshire Weekly Post" draws our attention to the fact that the article on "Photographing Buildings," by Mr. F. M. Sutcliffe, appeared in that paper and not in the "Yorkshire Post" to which it was attributed.

INTENSIFYING X-RAY NEGATIVES. The current number of the Ilford "Photographic Scraps" has an article by Mr. J. I. Pigg, in which he advocates the use of the mercury ammonia intensifier for X-ray negatives which call for intensification. Local reduction, he points out, may also be of service in X-ray work, ferricyanide and hypo being used for the purpose.

Concentrated Developers.

WE are occasionally asked by readers how they can make up concentrated developing solutions such as are supplied by dealers, and in some cases dealers have applied to us for suggestions as to the composition of ready-made developers. The following formulæ for the purpose were given recently by the "Photographische Industrie," and should serve the purpose.

Concentrated Metol-hydrokinone Single Solution Developer.

The following chemicals are dissolved in thirty-three ounces of water in the order given, taking care that each is dissolved before the next is added. The water may be warmed to facilitate solution.

Sodium sulphite crystals	5 ounces
Metol	75 grains
Hydrokinone	150 grains
Potassium carbonate ...	3 ounces
Potassium bromide ...	15 grains

For developing plates one part of this developer and three or four parts of water are taken, for gaslight papers one part of developer to two of water.

Two-solution Metol-hydrokinone Developer.

A.

Water	1 quart
Sodium sulphite crystals	6 ounces
Hydrokinone	3 drams
Metol	95 grains

B.

Water	1 quart
Potassium carbonate ...	4 ounces

For plates, one part of A, one part of B, and six parts of water are taken. For gaslight papers, the developer is made up by taking one part of A, one part of B, and two parts of water, sufficient potassium bromide being added to keep the whites clear.

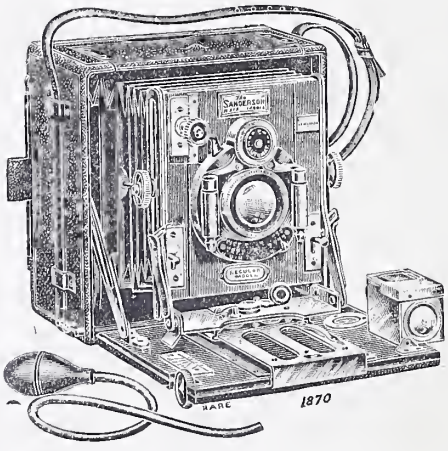


THE·LATEST·IN·APPARATUS·&·MATERIAL.

Improvements in Recent Models of the Sanderson Camera.

THOSE who remember the Sanderson camera when it first made its appearance on the market will be able to bear us out when we say that, although the Sanderson principle was as evident in it then as it is now, the camera itself has been the subject of a steady and constant transformation, as improvement after improvement was introduced, and we do not doubt that that transformation is still in progress, although it is not easy to see the direction in which the present model could be altered to advantage.

We have recently had an opportunity of using a 1909 Regular Model Sanderson hand camera, and found it a most responsible and adaptable tool. The back focussing rack and pinion which has heretofore figured only in the De Luxe pattern has now been fitted both to the "Regular" and "Tropical." By this means, when the photographer wishes to use a lens of very short focus, he can drop the ordinary baseboard of the camera out of the way, and use a special short baseboard with which the camera is provided, which baseboard, having a rack and pinion of its own, makes it as easy to focus a wide-angle lens as one of ordinary focal length.



Another modification is in the method of securing the reversing back to the camera. Hitherto this has been done by means of clips at the two top corners, but these have now been replaced by two automatic catches, which can be released by pressing a concealed spring on the top of the camera, a method which is certainly handier. The rising and falling front, also, are now actuated by a rack and pinion.

It will be seen that these are all changes of detail, calculated to make the camera more easy to use. The main feature of the Sanderson, however, is the characteristic swinging front, which not only gives such a degree of rise as does away with all need for a swing back, but also enables a very serviceable increase in the extension possible to be effected without in any way increasing the size of the camera. Thus the 5 × 4 instrument which we have been using would close in so as to allow the lens to be within two inches of the plate, while it could be opened out to an extension of almost seventeen inches. Even at this extension the front was held rigidly, and the image was free from tremor.

The minor fittings, the infinity catch, the focussing hood, scale, etc., were what they should be, and the camera was one which was very pleasant to use. After a spell with it, we felt no temptation to surprise at the popular favour which it enjoys, a favour which the continued improvement bestowed upon it causes to grow in extent as time rolls on. Its makers, Messrs. Houghtons, Ltd., of 88 and 89, High Holborn, London, W.C., have issued a little book setting forth its virtues, its patterns, and their prices, which everyone thinking of buying a hand or a stand camera should send for.

The Watkins Time Thermometer for Autochromes.

THE first described method of treating autochrome plates is the one which we believe is still the best, namely to place the plates in a developer of constant strength, and develop them in darkness for a fixed time. Attempts to remedy errors in exposure we believe to be better made after reversal by intensification or by reduction as the case in hand may seem to require, the great thing being to avoid such errors by the careful use of an exposure meter.

"The Watkins Time Thermometer" has already been reviewed in our columns; this present note refers to a modification of it for use with autochromes. It is based upon the original instructions of Messrs. Lumière to develop for two and a half minutes at 60°. The thermometer is simply placed in the developer for a few moments, and is then read off. It does not indicate temperatures by any standard scale, but gives directly in minutes and part of a minute the time for which the developer should be allowed to act.

We have already used this instrument several times, and have found it most reliable. It has taken a recognised and permanent place amongst our darkroom appliances for colour work, and we can strongly recommend our fellow autochrome workers to avail themselves of its services.

In a note from the Watkins Meter Co. they point out that it is designed for use with Lumière's quinomet-ammonia and pyro-ammonia developers at their standard strength, but it can also be used with any pyro-ammonia developer if the right concentration is first found by trial. The time indicated by the height of the mercury should always be that given to the development, any adjustment being made by altering the concentration of the developer, either beforehand or after observation of the appearance of the image, a stronger developer giving more contrast but less total density in the final positive, a weaker developer giving less contrast but more density. If it is judged by the appearance of the image in the dish that it is over-exposed water should be added; if under-exposed concentrated developer, pouring the liquid off into the measure for the purpose. But quickness of appearance caused by warm temperature should not be put down to over-exposure. We prefer to develop in darkness, and rely on correct exposure beforehand.

The Griffin Tourist Daylight Developing Tank.

THE amateur who has determined to adopt tank development finds that the apparatus makers are determined that he shall have no reason to complain for want of convenient appliances for the operation. A constant succession of new designs of tank developing apparatus has been one of the most conspicuous features



of the past few months, and we are constantly receiving fresh tanks or tank adjuncts for trial and report.

The latest comer, and certainly one of the most all-round instruments for the purpose, is the Tourist daylight developing tank, which has just been put upon the market by Messrs. John J. Griffin and Sons, Ltd., of Kingsway, London, W.C. It is constructed to take six plates, which are held in a detachable patent rack, which by its design makes it very easy to put the plates into it in perfect darkness.

The two illustrations will serve to make the construction of the tank quite clear. It consists essentially of two parts—the rack and the light-tight container or tank. The left-hand illustration shows the latter with its lid removed and the rack raised by means of its two lifters. These not only serve as handles, but guide the flow of the developer as it is poured in by means of the funnel in the lid. The other illustration shows very well how the tank can be slung from the tap, so that it may be used not only as a developer, but also as a washer.

The makers, we notice, point out that it should be used for fixing as well as for developing, and if after the hypo bath the plates are washed in a stream of running water, as depicted, they should not only be themselves freed from hypo, but the tank itself would also to a certainty be cleansed and ready for use once more for developing. A steady stream of water passed through the tank in this way for half an hour, it is stated, will thoroughly wash the negatives.

The Tourist tank is substantially made, well nickel plated, and well finished, and Messrs. Griffin supply Tanka developing powders and Tanka fixing salts for use with it, the former at 2d. each, the latter at 1s. 6d. per box of six. It is made in four sizes—quarter-plate, 5 by 4, postcard, and half-plate—and these, which each holds six plates, sell at 7s. 6d., 10s. 6d., 10s. 6d., and 12s. 6d. respectively. One of these tanks does away with all need of dishes, and makes it unnecessary to finger the plates from the time they are put into the tank until they are taken out of the rack, finished and dry.

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Photographing the Sun and Moon.

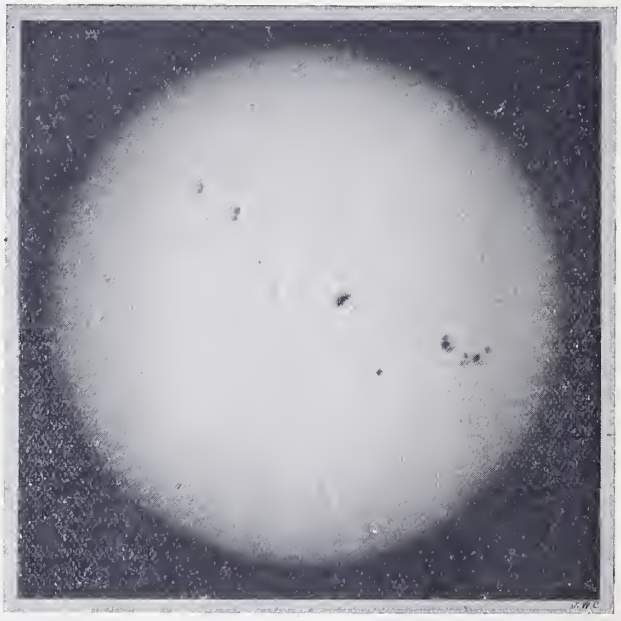
By Rev. James W. Cotton, Member of the British Astronomical Association.
Special to "Photography and Focus."

THIS article is written in the interests of such amateur photographers as possess, or have access to, a refracting telescope, and is the result of practical experiments made by the writer. Though some details may require modification in each individual case it will, in general, indicate the method by which a telescope may be converted into a camera for the purposes of sun and moon photography.

The reason for pressing the telescope into this service is that its object glass is a lens of exceptionally long focus—a very important consideration when it is desired to photograph such apparently small objects as the sun and moon upon a scale large enough to show some detail. The image formed at the focus of the object glass may, moreover, be still further enlarged by retaining in the telescope one of its eyepieces.

The principal requisite, in addition to the telescope, will be a box whose dimensions will depend upon individual considerations. This box should be well and strongly made, and a man not accustomed to the use of tools would be well advised to purchase a wooden plate box and adapt it to his purpose. The grooves at the sides of the box will, as we shall shortly see, be extremely useful.

One end of the box must have a round hole cut in it, over which must be fixed a collar by means of which the box may be attached to the telescope. The collar may consist of a round piece of hard wood, say about 2in. long, with a clean hole bored through its length, of such a size as to slide firmly upon the telescope eye-tube. This collar may be securely attached to the end of the box by means of screws inserted from the inside.



The sun. Taken with a box attached to 3½in. astronomical telescope, stopped down to 2in. A ten-times screen used.

At the opposite end of the box provision must be made for the reception of the plate carrier. As the experimenter is most probably the possessor of a stand camera, the simplest method will be to cut in the end of the box an opening and rebate exactly similar to those at the back of his camera. By this means the reversing back and dark slide of the camera may be borrowed for the occasion, and secured by buttons at the end of the box.

If the box has a hinged lid a strip of velvet will need to be glued along the edge upon which it closes down, and other precautions taken to exclude all light. This might perhaps be better effected by means of a lid which would slide in grooves.

The whole interior of the box will require a couple of coats of dead black.

As regards an exposing shutter, all will agree that for solar photography the focal plane shutter is the ideal thing, and this can, of course, be readily fitted to the box. The writer's experiments, however, were made by means of a Simplex shutter, capable of giving "time," "bulb," and "instantaneous" exposures, the last being probably about one-thirtieth of a second. This shutter, which is a cheaper and simpler form of the Unicum, has two leaves, which slide partly over each other. When the fierce solar rays were concentrated by the telescope upon these leaves they warped, and would probably soon have been consumed. By the aid of an ingenious friend, however, these leaves were removed, and in their place were inserted two similar leaves, cut to pattern out of a piece of ferrotype plate.

The shutter was fixed in the centre of a wooden panel which had been bored to receive it; and the panel slid into the box by means of two of the grooves. To operate the shutter, the bulb and tube had to be brought into requisition. The tube was passed through a small bored cork which was pressed into a hole in the side of the box, so that the exit of the tube from the box became light-tight.

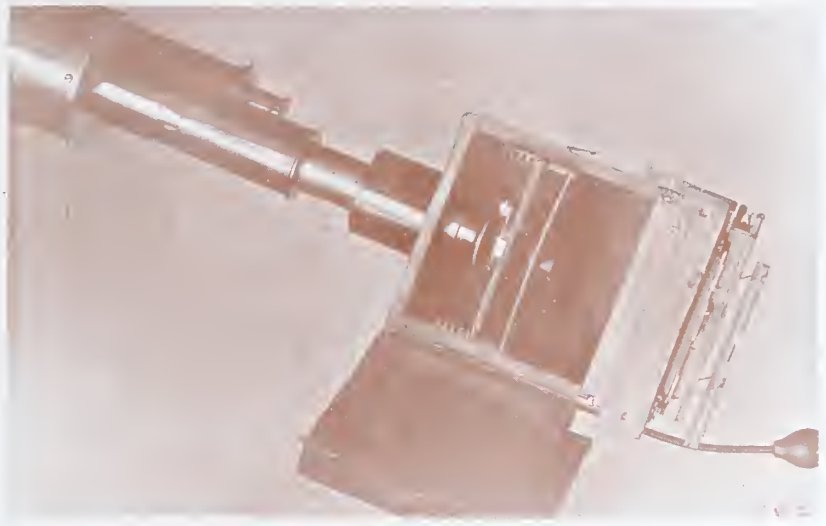
The eye-tube of the telescope, with a low-power eyepiece inserted, was pushed through the collar from the inside of the box. The projecting end of the eye-tube being then inserted into the telescope draw-tube in the usual manner, the telescope was converted into a long focus camera.

As every telescope is provided with some means of altering the distance between its object glass and its eyepiece, the focussing of the image of sun or moon upon the ground-glass is extremely simple. It needs to be remembered, however, that as the telescope lenses are not corrected for photography the actinic and visual foci will not be coincident. Even if the telescope were fitted with a superb photo-visual object glass, the eyepiece lenses would complicate matters. It is necessary, therefore, to find the correct actinic focus by experiment in the case of each individual telescope. The experiment can, however, be made once for all, and the actinic focus indicated by a mark on the draw-tube. It is an advantage, indeed, to have at least two marks—one to indicate the focus when no screen is employed, and the other the focus with a ten-times yellow screen.

The shortest possible exposure with this apparatus is not nearly short enough for the sun, so the ten-times screen is fixed in a panel and slid into the box by means of two of the grooves. On a bright summer day, however, we shall probably find some further reduction necessary if our plate is not to be grossly over-exposed. This may be secured by making a cap of black cardboard to fit over the object glass end of the telescope, and cutting in it a circular hole of 2in. diameter.

The telescope should have a firm support, and be capable of being either freely moved or securely clamped as occasion may arise.

To photograph the sun, the method of procedure is as follows: A backed lantern plate, chosen on account of its slowness and its fine grain, having been inserted in the dark slide, the ground-glass is moved out of the way, and the dark slide at once inserted at the end of the box. The box lid is opened, and the image of the sun projected through the open shutter upon the front of the closed dark slide. Owing to the rotation of our earth upon its axis this image will appear to move across the dark slide. The telescope is moved so as to bring the image to a marked position at the side of the slide, and, watch in hand, the operator notes how many seconds it takes it to travel to the centre. We will suppose it takes 60. The image is now brought back to the marked position whence it started. The Simplex is closed and set to work at "instantaneous." The box lid is also closed, and then the shutter of the dark slide is drawn, in readiness for the exposure. The operator now stands still, bulb in hand, to enable the apparatus to become perfectly steady.



A simple piece of apparatus for sun and moon photography, attached to the eyepiece end of a 3¼in. astronomical telescope.

At the expiration of exactly sixty seconds from the time at which he last saw the projected image, it will have had time to travel to the centre of the plate; hence he presses the bulb and makes the exposure. Before opening the box he is careful to close the shutter of the dark slide.

The plate should be developed very slowly with well-diluted glycin and a few drops of bromide, and the negative should not be allowed to gain much density.

The procedure in the case of the photography of the moon is similar, but it must be borne in mind that the moon, even when full, gives only 1-600,000th the amount of light radiated by the sun. We must therefore discard the yellow screen, and also the cap by means of which the aperture of the telescope was reduced. Instead of a slow lantern plate, moreover, we must use one of the fastest plates on the market. Even then we must not think of giving the "instantaneous" exposure. We had better set the shutter at "Bulb," and give about half a second. If the moon is young a longer exposure would be desirable, but we had better not risk it, or the movement may show



The moon. Taken by means of a box attached to a 3¼in. astronomical telescope.
By Rev. J. W. Cotton.

The thoroughly equipped astronomer can, of course, give a longer exposure because his telescope is made to follow the moon's apparent motion by a suitable arrangement of clock-work. As we have probably not been able to expose it quite sufficiently, the plate had better be treated as an under-exposed one, especially if we wish to see in relief the interesting objects along the "terminator"—the name given by astronomers to the boundary or edge between the light and dark portions of our satellite.

In printing from the negatives it will be advisable to employ a paper that increases contrast. The accompanying photographs are daylight enlargements made by means of a long exposure upon gaslight paper.

The writer trusts that the foregoing will suffice to show how the possession of a telescope may enable the amateur photographer to get satisfactory prints of the rugged scenery of the moon, and, if he care to do so, to keep a reliable record of those ever changing groups of spots upon the face of the sun the study of which is so intensely fascinating.

He desires gratefully to acknowledge the valuable assistance rendered him in his earlier experiments in celestial photography by a fellow member of the British Astronomical Association—the Rev. J. G. Benson.



COLOUR-VALUES OF FOLIAGE

Special to "Photography & Focus" By "The Tramp"

THE photographer, when making some of his first efforts to render adequately the beauties of foliage as they appeal to his eye in all their rich variety, is doomed to much disappointment unless he is properly equipped for his work.

It goes without saying that he must use orthochromatic plates, at the least; but it is quite possible to secure negatives which will give a fairly satisfactory rendering of the colour values of a summer landscape without using those special varieties of orthochromatic plates known as panchromatic—as being sensitive even to the red rays and so very liable to get fogged in the dark room.

There are plates for which it is claimed that they will give correct renderings by themselves, but for most makes a suitable colour screen is a needful accessory, and, speaking generally, the advice of the plate maker as to intensity of screen should be followed. Beyond that it is perhaps not necessary to go—at any rate, not to the full extent of a special screen for each make of plate. That is a counsel of perfection, or, at least, of profit, on the part of the makers.

Considering the very general use of the same dyes for producing the ordinary kinds of orthochromatic plates, any colour screen of suitable tint and intensity would seem to be likely to give almost similar results with most of them. With specially-prepared plates, of course, the case is different.

Too dark a screen should not be used on foliage; otherwise exposure, on what is commonly a subject in motion, owing to the wind, will be unduly prolonged, with a fuzzy result; and, apart from this, over-correction is likely to ensue.

Is it necessary to insist again here on the superiority of backed plates? Somehow photographers seem to be slow in learning this superiority. It is a rare thing—except when buying of a practical photographer, who knows what to recommend to others—that one can purchase backed plates of the dealer in a small town (in the kind of place, in fact, where one usually runs short of plates). Only this week the writer found it necessary to reload his slides when on tour, and in one of the most important towns in the Lake District was unable to get backed plates. The dealer, who had a large stock of plates of various makes (and one was glad to see various brands of orthochromatics well represented), had only one box of backed plates in the place, and these not of the kind required. A dealer stocks what he is asked for, so that the deduction is that photographers in general have not yet learned what is best for their work. The photographic papers have been insisting for some years on the fact that a backed plate is never a disadvantage, and almost always a necessity for the best results; yet "line upon line and precept upon precept" seems to have been of little avail. If only the sceptic would try the simple experiment of making a couple of exposures on one subject—one with a backed and the other with an unbacked plate—he would assuredly be converted: and to employ unbacked plates on the delicate twigs and leaves of trees, with more or less open space behind them, is simply absurd.

The lighting of foliage subjects is very important. One wants to render light-green as light, of course; but light-green in bright sunshine is apt to come out a dazzling white, and is more suggestive of snow than sunshine. It is, therefore, not well to work with the sun directly behind the camera. A thousand delicate "bits" of light and shade among the leaves may be secured in a good cross-light; and often leaves taken against the sun form good subjects, the light, shining through them, showing up their veinings and other delicate charms delightfully. It is scarcely necessary to

say that in such a case the lens must be shielded from the direct rays of the sun. This can generally be effected with a little "dodging."

One of the inexperienced worker's greatest difficulties is in connection with the almost invariable motion, more or less marked, of young foliage. An absolutely still day is usually one of steady glare or of dulness and deadness of lighting, and not good for the photography of "ticklish" subjects; while a windy day is the despair and exasperation of anyone who does not possess unlimited patience. But by the benevolent law which governs breezes, a really steady wind is almost unknown, and, unless a tempest be raging, a patient waiting for the opportunity of a lull of sufficient duration is generally rewarded, sooner or later. There is in such a case nothing for it, then, but to get everything ready for the exposure, and then wait, bulb in hand, for the quiet moment which will reward one's patience.

It should be unnecessary to point out that, as the dark slide should be in the camera, with the shutter down, the photographer should be able to place implicit faith in its light-tight character. If there be any doubt about it, the whole camera should be covered over with a focussing cloth, only the lens and shutter being left uncovered.

In the writer's young days he was advised that, if the foliage would not remain still for the whole time which he wanted to give the plate, it would come to the same thing if he gave a series of snap-shot exposures on the moving trees, on the same plate, taking care not to move the camera in the meanwhile. Perhaps such a course would answer if one could make quite sure of each twig and leaf being in exactly the same position in relation to the rest of each snap.



INTERIOR, YORK MINSTER. BY THOMAS F. MARR.
Awarded a Certificate in the Beginners' Competition.

The advice given to him was taken, and the resultant negative is still preserved, as giving an admirable illustration of a hitherto unknown variety of some sort of cotton tree, or rather a tree on which cotton-wool grows profusely.

Yet it may sometimes happen that two or three very short exposures on swaying branches at the lowermost or uppermost moment of their movement may be successfully superposed.

Those in mind are advised to practise on "bits"—a single branch or spray often yielding the best results; to use backed orthochromatic plates; to employ such a colour screen or filter as will ensure the necessary correction; to avoid, above all, giving too short exposures—which give a result equivalent to over-correction, and which prevent the rendering of half-tones, etc.; to exercise patience on what is usually a "fidgetty" subject; and to accept the limitations of a monochromatic rendering of a variously tinted object—but to see that in the monochromatic print there shall be as close an approximation as possible to the relative light values of the colours.

Mounting Enlargements. By W. Moore.

Special to "Photography and Focus."

ONE of the difficulties which I encountered on taking up the subject of enlarging on thick rough surface bromide papers was that of getting the enlargement to adhere to the card on which I mounted it. Starch paste, which had answered well enough for mounting P.O.P. and bromide prints of the ordinary thin paper kind, did not seem to possess sufficient adhesiveness, and the enlargements on drying came right off the card. Glue I knew would stick, but glue is impure. Gelatine, however, a purified glue, is not open to the same objection.

The method of using it is much the same as if it were glue. White sheet gelatine, which is sold at most oil shops, is allowed to soak for an hour or two in cold water, and when it is perfectly limp is taken out, squeezed in the hands, and put into a jar, which is stood in a saucepan of hot water. The saucepan should be put on a gas or oil stove until the water is brought to the boil, and the gelatine, which should then be liquid and very hot, is applied to the back of the enlargement with a stiff brush.

The brush should be worked round and round all over the back of the enlargement, until it seems to be covered with a fine white froth. Particular attention should be given to the edges. When the whole of the enlargement has thus been covered with adhesive, a fresh supply should be taken on the brush, quickly brushed all over the back, and then the enlargement, being held face upwards in the two hands by the middle of two opposite sides, hanging down in a loop between them, it should be lowered on to the mount so that it first touches it along a line at the middle of the picture. It is then quickly brought into contact all over, smoothed down with the hands, always rubbing from the centre outwards, and put under slight pressure to dry.



AMONGST other hints which we have received lately from our readers are the following. We are always glad of brief notes on minor points of practice which any of our readers are willing to put at the disposal of their fellow photographers in this column.

A Pneumatic Release.

Owing to the compact way in which any camera closes up, I find there is no room for the ball and tube if this is left attached to the shutter-valve. To make it easy to attach and remove it—usually a troublesome operation—I got the smallest size of cycle pump connection I could buy (cost 3d.), removed the two metal screws (male and female) from either end, and attached the smaller of these to about an inch and a half of tube cut from the release. The other end of this tube was slipped over the nipple of the shutter-valve and is left attached thereto. The other metal screw was attached in the same way to the end of the tube connected with the ball. To make the joints secure, wherever rubber tube is drawn over a nipple it should be wound round firmly with fine brass or copper wire, or, failing that, with thread. To connect the ball to the shutter, all that is necessary is to screw the two together, when a perfectly airtight joint can be made, and the release used in the ordinary way. In my own case it is fixed to a Bausch and Lomb "Automat" shutter; but of course it can be applied to any shutter where a tube release has to be attached to a nipple. It is certainly much quicker and easier than pushing, pulling, or stretching the tube over the nipple.—JOHN T. HAIN.

Washing Large Prints.

Wandering into the club darkroom recently, I found a number of 10 by 8 prints lying in a dish of water, with the tap running on them. The owner doubtless imagined that the hypo was being washed out by this easy method, but I fear that some day in the future he will find unpleasant things happening to those prints. The most satisfactory plan, short of washing each one separately, is to use a very large dish, fix it on a slope, by propping up one end, and allow the tap to run into the upper corner, using a piece of bent tubing as a syphon at the lower. This ensures the hypo gravitating to the syphon, and so being drawn off as it washes out of the prints, but even then they need to be taken out and drained at intervals, as some is sure to be trapped between print and print if there are many. An arrangement of nets on frames so that each print lies in a little compartment of its own would prevent this.—S.J.T.

Fastening Bromide Paper to the Easel.

The following method I find more convenient than pinning the paper to the easel, and one which at the same time keeps it perfectly flat. Two pieces of wood, each about one inch by half an inch, and as long as the easel is wide, have two small staples attached to each—one at each end. Through these are tied pieces of elastic (hat elastic does very well), one to each piece of wood, and they are then slipped over the easel, so that the two pieces of wood lie flat on the face of it, and are held in position by the elastic, which at the same time allows them to be slipped up or down as may be required, to hold pieces of paper of different sizes. The paper is easily slipped under the wood and adjusted to the desired position, and is not defaced by holes where pins have been.—CECIL HEWITT.

Making up Developer.

I found that the "B" solution of my pyro-soda developer, which contained sodium carbonate and sodium sulphite, did not keep very well. The sulphite deteriorating gave me negatives that were badly stained. So I made up a twenty-five per cent. solution of sodium carbonate by itself, and only added the sulphite, dry, just as I was going to use it. This is most conveniently done by using the anhydrous sulphite, as this dissolves at once. The method has proved very satisfactory. I weighed out the amount of sulphite required for an ounce of the mixed developer, and having once seen how much it makes it is an easy matter to estimate it in the future without weighing, taking, approximately, the quantity required, on the point of the knife. The exact proportion of sulphite is not particular to a grain or two, so the procedure is quite simple. For each ounce of developer I take twenty minims of a ten per cent. solution of pyro, then add the water, then the quantity of sulphite (six grains of the anhydrous), and lastly fifty minims of the twenty-five per cent. solution of sodium carbonate. I use no bromide work to a Watkins factor of 10, and get first-class negatives quite free from any stain.—J. HAWKINS (Sydney, N.S.W.)

Paper stuck to the Negative.

It happens to all of us at times to find the print stuck to the negative by a drop of rain. I find the best way to remove it is to soak the negative (after removing as much paper as can readily be torn off) in a fresh hypo bath of three or four ounces to the pint for an hour or so. Then a little gentle rubbing with the finger (not the finger nail) will remove anything adhering to the film; and, if fortunate, one may find that the negative is not marked. If it is spotted at all, it must then be washed for a few minutes and placed in a combined toning and fixing bath, which will remove the spots in an hour or so, if they are removable at all. If the negative is not spotted, the hypo bath may be omitted. Of course the negative should be well washed at the finish, to take away any trace of hypo.—B. EUSTACE.

A Temporary Tripod Top.

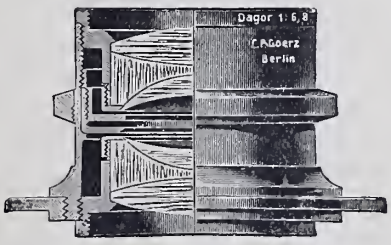
Having gone a long distance to take some photographs, I found that I had done what doubtless other of your readers have done, namely, left the tripod head at home. I cast about for a suitable substitute, but could find nothing until a flower pot took my attention. The pot was soon screwed to the base of the camera by means of the hole in the bottom, and the tripod legs being opened out and slipped into the inverted pot, by extending them widely they held the camera quite firmly. Even if the tripod screw had been missing also the stand would have served, as the camera was supported quite steadily on the bottom of the pot. As it is almost impossible to get a mile away from a flower pot in this country, this tip may be of service at any time. Even an ordinary jug might be used at a pinch.—W. SAYERS.

PRACTICAL NOTES ON PHOTOGRAPHIC LENSES

Special to "Photography & Focus"

The Goerz Double Anastigmat--the Dagor.

TWENTY years ago the glasses available for the construction of lenses were comparatively few in number and decidedly limited in diversity. Opticians were hampered in their designing to a very great extent, and the rapid rectilinear, which had then been on the market for about a quarter of a century, represented what then was, and what under those conditions would probably have remained, "the last word" in lens construction. Then came the world-renowned researches of Schott, the establishment of the Jena Glass Works, and the provision of something over a hundred new glasses, with powers of the most different kinds; and opticians found that the means at their disposal had increased to such an extent that they were able to obtain results and effect corrections in photographic and other lenses which, until then, had been deemed impossible. The day of the rapid rectilinear had gone, the day of the anastigmat was just dawning.



At the period to which we have referred, photographers did not know how much better the optical instruments at their disposal might be made, and the first modern anastigmat to open their eyes to the possibilities in this direction was the celebrated "Doppel Anastigmat," which was worked out by Von Hoegh, and put upon the market by the then unknown firm of Goerz, of Berlin. It was not the first photographic lens to use the new glass, nor was it actually the first anastigmat, but it was the first of those which we now know, and in its day unquestionably the best photographic lens made.

More of this particular form of lens have been made, in all probability, than of any other of the anastigmats, and if in certain directions Messrs. Goerz and other makers have been able to go one better in aperture or in convertibility since that distant period, it remains to-day one of the best of its kind, and one of the most popular. It is for that reason that we selected from the several patterns made by Messrs. Goerz the "Doppel Anastigmat," or, as it is now known, the Dagor or Series III. lens, as their representative in this series.

The illustration, which represents the Dagor lens in section, shows us that it consists of two combinations, each composed of three lenses cemented together. As these two combinations are alike, the lens is said to be symmetrical. The combination works at f/6.8, and includes an angle of 70° available at that aperture, or 90° if the lens is stopped down. For very rapid work requiring the most critical definition, the Dagor at its full aperture will be found to be all that can be required.

Owing to the large angle it includes, it allows the rising front to be used to an almost unlimited extent without the corners of the image on the plate being cut off. Or, on the other hand, it may be used on a plate at least one size larger, or more, as a wide-angle lens.

An example may serve to show this better. We will take the popular No. 0 Dagor, a 5in. lens, which at its full aperture will cover a quarter-plate perfectly and allow of some rise of front, even without stopping down. This same lens stopped down will cover a half-plate right up to its corners, and used in that way makes an excellent wide-angle lens.

When a lens of longer focus is required, one-half of the complete Dagor may be used. The back lens is that which is generally employed, on account of the greater ease with which the front combination may be unscrewed; but the front will do equally well, and is sometimes preferable, as, being at the other end of the mount, it may not need quite so much extension. With the full aperture of the combined lens, which for the single lens is approximately of twice the *f* number, and so requires four times the exposure, the single components of the Dagor give a softness of definition which is pleasant enough for portraiture, but is not quite what is wanted in general photography. By stopping them down to the f/8 or f/11 mark on the diaphragm, which is then actually f/16 or f/22, the definition will be found to be all that can be desired.

We might point out while on this topic that a later lens by Messrs. Goerz—the Pantar—not only itself works at f/6.3, but allows either of its components to be used at the full aperture of f/12.5 with perfect definition. Moreover, in the case of the Pantar the two halves may be of two different foci, so that with it we have a convertible lens of three foci.

In addition to the Dagor the same firm makes the Celor, a double anastigmat working at f/4.5 to f/5.5, and very suitable for reflex work and, in its larger sizes, a valuable instrument for studio portraiture.

The colour correction of this lens also fits it very well for three-colour work, although, where a lens of completely "apochromatic" character is wanted, the Goerz Alethar, with its eight glasses, is to be selected. The Syntor lens of the same makers is essentially a hand-camera lens, working at f/6.8, and made in 5in., 6in., 7in., and 8¼in. focus only. The Hypergon—a wide-angle lens working at f/22 and including an angle of 135°—stands in a class by itself. This remarkable lens is without a rival as far as an extremely wide angle is concerned, since it will cover a plate whose diagonal is five times the focus of the lens.

The Dagor is, however, the lens with which the name of Messrs. Goerz is most closely associated, and stands out as one of the most widely used and widely useful of lenses. Those who wish to know of what the Dagor and its colleagues are capable should drop a postcard to the C. P. Goerz Optical Works, Ltd., 1-6, Holborn Circus, London, E.C., for a copy of "What can be done with the Goerz lens"—a booklet of a very convincing character.

Cardboard and Glue.

BY THOS. KINGHAM.

Special to "Photography and Focus."

THERE are quite a number of appliances which the amateur whose purse is not too well lined can construct for himself with no more materials than are summarised in the phrase cardboard and glue. They may not look so nice as the polished mahogany and lacquered brass of the optician, but, on the principle that "handsome is as handsome does," they will be equally beautiful, since they are equally effective.

The materials that are wanted are a few pieces of card of various thicknesses, from a visiting card upwards, and some adhesive. For some purposes glue is to be preferred, but for small work gum or seccotine will be found to answer excellently, and to be more convenient. A sharp—really sharp—knife, a pair of scissors, compasses, ruler and pencil, and one or two "bulldog clips" are all the tools needed. A supply of matt black varnish I presume the photographer already has. If apparatus has to be extemporised in a hurry and no black varnish is to hand, boot blacking will be found to answer.

Where card has to be bent to an angle, it should be lightly scored with the knife to allow it to make a clean bend. One of the secrets of successful work with these simple materials is to plot out each piece accurately with ruler and pencil, and cut as truly as possible to the lines.

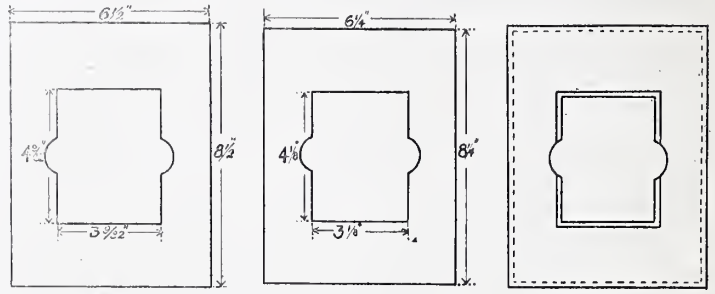


Fig. 1.

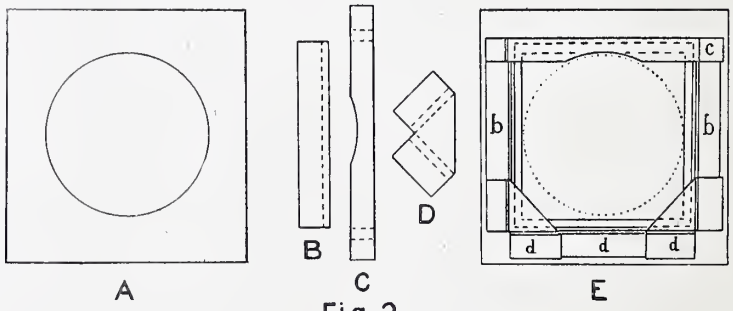


Fig. 2.

Carriers for Dark Slides.

One of the easiest of photographic appliances that can be made out of cardboard is a carrier, by which a smaller plate than the one for which the dark slide was intended can be used; and a spare evening may well be spent in constructing a set of these for future use. Card is not stiff enough for larger carriers than whole-plate, but up to this size it is very suitable. The thin wooden carriers sold by camera makers are "nested"; that is to say, the carrier to take a quarter-plate is half-plate size externally, and this fits into a half-plate carrier, which fits a whole-plate dark slide, and so on. But in making carriers of cardboard it will be found more convenient to make each one externally the size of the dark slide and internally the size of the plate to be used. Nested carriers of card are apt to bend.

To make a carrier, then, two pieces of card are required—A and B (fig. 1). One of these may be fairly stout, but not thicker than a plate; the other need be very little more substantial than a visiting card. The thicker card should be cut to the exact size of the plate which the dark slide takes, and then in the centre of it an opening cut a shade larger than the plate which the carrier is required to hold. If this opening is made a thirty-second of an inch larger each way than the plate it is to take, this will be sufficient, as modern machine-cut dry plates are very regular in size. Care must be taken to see that its angles are exactly right angles, or the clearance of a thirty-second will prove insufficient. The dimensions given in fig. 1 are for a quarter-plate carrier to go in a whole-plate dark slide.

Out of the middle of each of the longer sides of the opening so cut a curved recess should be cut. A penny piece makes a good template for it. These recesses are for finger holes, and make it easy to put the plates in and out of the carrier. I am rather surprised that the commercial wooden carriers do not provide them.

The thin card is then cut. It must be in each direction a quarter of an inch less than the size of plate which the dark slide takes, as, when the carrier is put into the slide, this card must clear the rebate, or the plate will not register. In the centre is cut an opening, one-eighth of an inch each way smaller than the plate which the carrier is to take. This will provide a rebate of a sixteenth of an inch all round—quite sufficient for the purpose. Putting the bigger card in position on the smaller one, the finger holes are marked out and cut away.

Nothing then remains but to brush glue on one side of the smaller card, adjust the larger one on it, being guided by the sixteenth of an inch which must show all round the opening, and then to press the two into contact until dry. The glue will hold the two together, and make them much stiffer than they are when not so stuck. A coating of dead black all over completes the carrier (C, fig. 1).

In this way a dozen carriers can very easily be made in an evening, and may often be the means of effecting an economy, allowing us to use a small plate, where without them a large one would have been necessary.

A Colour Screen Holder.

Many orthochromatic screens are square in outline, and when they cannot be fastened direct upon the inside of the camera front the photographer may be puzzled how to attach them to the lens. A fitting is easily made, however.

The basis of this fitting must be a ring of card which will fit nicely on the lens, just as a lens cap fits. This must be built up of paper, and twenty or thirty strips a quarter of an inch wide, and about as long as the circumference of the lens tube, should be cut. One a little longer than the others is first wound round the lens tube, and its ends neatly gummed together. One of the other strips is then slightly damped to make it limp, one side is gummed, and then the middle of the strip is laid on the paper ring already round the lens, and the two ends pulled round until they nearly meet, smoothing the strip down with the fingers before the next one is applied in a similar manner.



THE AFTERMATH, HONGKONG. BY DR. G. P. JORDAN.

Awarded the Bronze Plaque in the Special Subject Competition.

It is much easier to make a neat job of the ring in this way than by using strips which are long enough to go round more than once. Gum is better than glue, and the successive strips should be so put on that the ends fall in different parts of the circumference. When all the strips are put on the ring should be put away, on the lens, to get quite dry, when it will be found a good fit and rigid.

While this ring is drying, the holder for the screen itself may be put in hand. The easiest way to make this is to take a square of thin card A (fig. 2), half an inch bigger each way than the screen itself, and in the centre of this to cut a circular opening, either just smaller than the inside of the ring, or, if this is larger than the colour screen will allow, then the opening must be of a diameter equal to the length of one side of the screen itself. Three strips of card about three-sixteenths wide, and as long as the colour screen, are then folded lengthwise into a right angle B (fig. 2), so that when their broader part is laid on the card the narrower stands up just a trifle higher than the screen itself. The strips are seen in position at *b b* in E (fig. 2). Two corner pieces like D are then cut, and another piece C, to go across the top, to prevent the screen from falling forward, the curved piece being taken out to prevent any of the light being cut off. When these pieces are all ready, the screen itself, wrapped in paper, is laid upon the card A, and the strips of card built up round it, as shown at *b*, *c*, and *d* in E, being fastened into position with a little glue, and held in "bulldog clips" until dry. When dry, we shall have a little cardboard holder, into which the screen can be slipped as required. The newspaper in which it was wrapped will be found to allow just a nice clearance, so that the screen, without being too loose, will slip readily in and out.

The next stage is to attach the holder so made to the ring which slides on the lens. As we have only the edge of the ring to stick, a powerful adhesive will be required, and nothing is better for the purpose than seccotine. A little of this is spread round the edge of the ring, and this is pressed into position at the back of A. The screen should be left in A for this purpose so as to stiffen it, and the ring and holder should be left under pressure undisturbed for some hours. Nothing remains but to give the holder a coating of dead black wherever there is any chance of the white card being visible from the lens.

An elaboration of this device may be made by constructing a second smaller ring, attaching this to a second card, and sticking this on the face of the first. This second ring may be of such a size as to take the lens cap or shutter.

Other Apparatus.

When once the amateur has learnt the possibilities of these very simple materials, he is almost sure to wish to go further. Holders for magnifiers, an extension by which a lens of much longer focus than the camera is designed for can be used, a fixed focus reducing camera for lantern slide making, and a fixed focus enlarger are only a few of the things which lie well within the powers of such things. But there is no need to go into detail as to their construction, as they will vary according to the nature of the apparatus with which they are to be used. Other useful appliances will also no doubt suggest themselves as being capable of sound construction with these simple materials.

From a Distant Reader.



Daybreak. *By Alfred J. Baxter (Cape Town).*

Notes on Photographing Interiors.

By E. Lloyd.

Special to "Photography & Focus."

It is not always possible to get a group of details in an interior so as to form a complete and self-contained picture, but there are one or two conditions which must be complied with, if the print is to be reasonably satisfactory. One of these is to leave no important descending line of the architecture without support. The ascending line of an arch may go off the edge of the picture, but the descending line should be shown in its entirety, together with the pier or column supporting it. In the same way any column prominent in the picture should have its base shown, and not its base only, but a sufficiency of the flooring in front of it, to give it the appearance of standing firmly. This is much more important than to include a great deal of ceiling.

* * *

A wide-angle lens is essential when a survey of a building is being made, but when the aim is to get architectural *pictures* it is better left at home. It will almost invariably cause a standpoint to be selected from which the perspective of the picture will seem to be too violent. It is surprising to those who regard the wide-angle lens as a necessity in architectural work to find how very much can be done in cathedrals and churches without it, with a lens of which the focus is at least as long as the diagonal of the plate, or longer.

* * *

The level ordinarily fitted to a camera is not sufficiently sensitive to be of much service in architectural photography, where we may have parallel vertical lines right on the edge of the picture, the least convergence in which would show when contrasted with the edges of the print itself. A longer level may be carried, but there is nothing better or more convenient than a bullet on the end of a thread. This plumb line can be held against one corner of the camera back, and the ground-glass in this way made strictly vertical.

Focussing in interior work must be done very carefully, as the poorness of the light may otherwise lead to some important part being overlooked. A slight diffusion in the distance will usually go unnoticed, but any indistinctness in the parts near the camera is instantly noticeable and unpleasant. Those parts of the picture which come in the extreme corners of the focussing screen are hard to see, and so must be specially looked to. A lighted match or candle may sometimes be put in a place where the detail is too dark to be visible on the screen, and the flame itself focussed. When this is not possible, a piece of newspaper or a handkerchief will sometimes serve the same purpose.

* * *

Standpoints unusual or not generally available are to be avoided. The architect designed his building to be seen from the floor at the ordinary eye level, or from points to which access was customary and easy, and in photographing it the best effects will be found to be obtained from such positions. Even when one is tempted to select a higher view point to see over pews or other obstructions, it should only be chosen as a last resort.

* * *

A geat deal can often be done to improve a negative of an interior by working on it with a piece of cotton-wool slightly moistened with methylated spirit, or, better still, by the use of Baskett's reducer in the same way. This enables over dense parts to be lightened gradually, and may be the means of making many a negative of use which otherwise would not be worth printing. It is better, however, to avoid making any part of the negative too dense in the first instance, and to stop the developing too soon rather than too late, adding a little contrast where it needs it by work on the back of the negative, which can be removed and started afresh if not exactly what is required.



A Glimpse of the Nave, Rochester. *By W. J. Sayer.*

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HOLIDAY INFORMATION.

Abingdon.

Abingdon, on the Thames, sixty-one miles by rail from London (G.W.R.), lies in a district which abounds in subjects for the photographer. In the town itself there are the Old Abbey and Gateway, Town Hall, St. Nicholas Church, and St. Helens Church. Round the last are several blocks of interesting old almshouses. The market place, the old houses with quaint gabled roofs, the bridge of many arches over the Thames, and the banks of the river itself afford opportunities for work.

Places of Interest.

Nuneham, with lovely woods, extensive park, bridge, and thatched cottages. Admittance to the woods by ticket from The Steward, Nuneham Park, on Tuesday and Thursday.

Sutton Courtenay (three miles), an old village with many weirs, a disused mill, and beautiful pool.

Clifton Hampden, with an elevated church and churchyard overlooking the river and bridge.

Wittenham Clumps (a tree-topped hill), Day's lock, and Dorchester.

Cumnor Hall (five miles).

Oxford (within six miles).

Dealer (dark room)—W. J. Vasey, Broad Street, Abingdon.

Glastonbury.

Glastonbury, in Somersetshire, five and a half miles south of Wells, is famous for its abbey, which affords many opportunities for the photographer. St. Joseph's Chapel (consecrated in 1186), the North Doorway, and the Abbey Church may be mentioned. Then there are the Abbot's Barn in Chilkwell Street, a fourteenth century Cruciform building; the Abbot's Kitchen; the George Hotel, built in the fifteenth century for the use of pilgrims; and the Tribunal in High Street (late fifteenth century).

Places of Interest.

Wells with its cathedral, Bishop's Palace, etc.

Cheddar (12 miles) can be reached by rail, and is noted for its cliffs and caves.

Sharpham Park (2 miles), the birthplace of Henry Fielding, is a farm house, and formerly belonged to Glastonbury Abbey.

Dealer (dark room), S. J. Hulbert, 4, Magdalene Street, Glastonbury.

Kelvedon.

Kelvedon is forty-two miles from London, on the Colchester line of the Great Eastern Railway. Although possessing little of interest, a good many photographers find the neighbourhood of Kelvedon a good one for landscape work generally.

Places of Interest.

Coggleshall (2½ miles) has an old Cistercian abbey, ancient houses, and a fine church.

The mouth of the Blackwater, for boat pictures, is within half an hour's journey of Kelvedon.

Dealer (darkroom), J. B. Firth, Kelvedon

Macclesfield.

Macclesfield, lying on the west of the hills that separate Derbyshire from Cheshire, is eighteen miles from Manchester and twelve from Buxton. The parish church recently restored contains sixteenth century and later monuments. The two public parks have some fine timber.

Places of Interest.

Prestbury (3 miles) is a pretty village. The Priest's House, opposite the church, is a good specimen of black and white, and there are a couple of good views across the river, which with the village street are best in the forenoon. For the afternoon light there are a Norman doorway and a fine old sundial in the churchyard.

Alderley (6 miles)—a pleasant cycle ride through Broken Cross, Henbury, and Monk's Heath—has a fine old church. Artist's Lane here is much painted and photographed.

Moreton Old Hall, a famous timbered mansion, near Congleton, is easily reached by the N.S.R. (Mowcop Station). A walk of twenty minutes across the fields brings one to it. The moat and bridge, the front, and the large bay windows in the courtyard are best photographed in the morning. There are good interiors, the ballroom, banqueting hall, etc. Particulars as to photographing here should be obtained beforehand, by enclosing a stamped addressed envelope to Old Moreton Hall, Congleton. A walk of two miles brings one to Astbury, with a fine church.

Gawsworth (3 miles) is a lovely hamlet, with four large pools. The Rectory is a perfect specimen of a fifteenth century black and white house, and the Old Hall has a good oriel window. The church is picturesque and has a fine screen.

Dealer (darkroom), J. Hodkinson, Macclesfield.

Penzance.

Penzance is a picturesque port and fishing station at the south-west extremity of Cornwall, forming the terminus of the G.W.R. in that direction. It can be reached both by rail and by sea, steamers calling there regularly from London and Dublin. The town itself is not very picturesque, but there is a good deal that may be done in the neighbourhood of the harbour.

Places of Interest.

St. Michael's Mount, three miles, is an island which can be reached at low water. The castle is the seat of Lord St. Levan, and is open daily to visitors.

Land's End, ten miles, is accessible by coach, the route, which is very fine in parts, being generally by the Logan Rock. The cliff scenery all round the coast here, and particularly at the Land's End, is very grand and bold.

Newlyn, a mile and a half, is a fishing village, rendered famous by the "Newlyn School."

Dealer, Mr. Preston, 48, Market Place, Penzance.



Lantern Slide Diagrams.

An excellent method of making these is to take a piece of ground glass 3¼ × 3¼ inches, and to make the required diagram in pencil on its ground side. This allows not only outline work but shading, and as the diagram may be traced from an original put underneath the glass, it is very handy when an illustration out of a book is wanted. The diagram when finished is made permanent and the grain of the glass is removed by giving it a coating of a varnish made by dissolving gum dammar in benzole, as recommended for autochrome work.

Support for the Scales.

Those scales which have to be held up by one hand when weighing is being done are very inconvenient, as it often needs two hands to attend to the addition of the chemical that is being weighed. It is a convenience, therefore, to have a little peg fixed so as to project a little from the wall, and allow the scales to be hooked on to it, so that they are held at the most convenient height for weighing. This will be found to be such that when the pans are level, they are half an inch or less from the table. The box in which they are kept may be used as a support if this is more convenient, fixing a projection from one end so as to be at the top when the box is stood up on its other end.

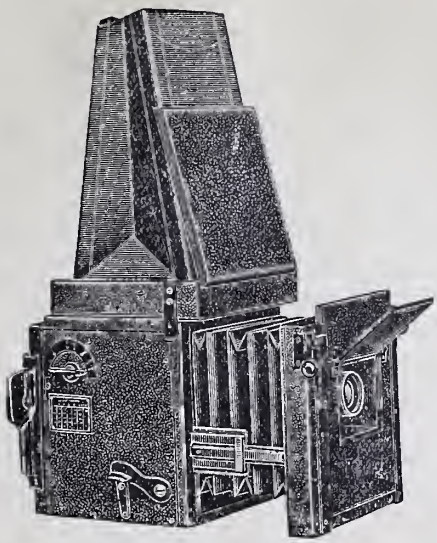
Focal Plane Shutters.

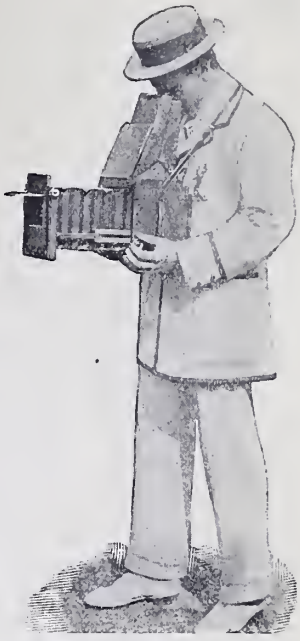
The focal plane shutter enjoys a better reputation for accuracy as far as its marked speeds are concerned than most other forms. In testing one, however, it will be found advisable to measure it both when the slot is travelling vertically, and when it is passing from side to side. Some patterns will be found to give appreciably different readings in the two cases.

A Cracked Negative.

The mark which shows on the print when the negative is cracked and printed without any precaution is caused by the light stopped by the vertical edge of the broken glass, which thus casts a shadow on one side or the other. If the printing frame is kept rotating slowly all the time printing is going on, this shadow will no longer fall in one place on the print, but will be distributed and no longer be noticeable. A convenient way of rotating the printing frame when it is not a large one is to place it on the table of a gramophone.







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„ „ Cooke Series IV. F 5·6 ..	14 0 0	16 10 6	17 17 0	22 0 0
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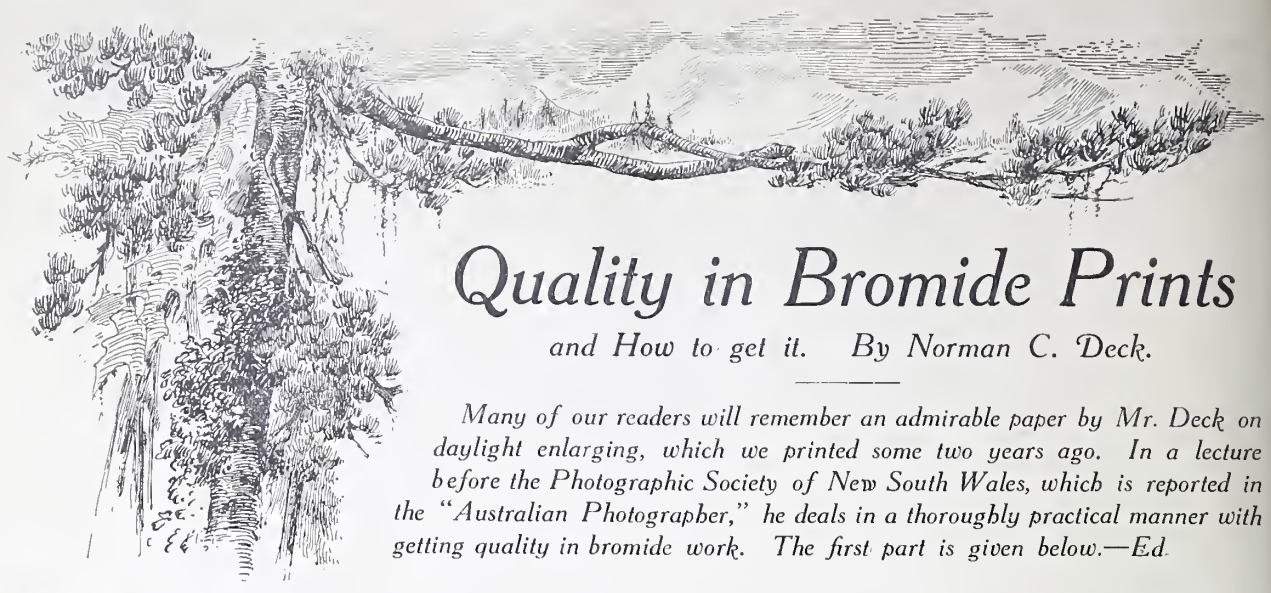
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Quality in Bromide Prints

and How to get it. By Norman C. Deck.

Many of our readers will remember an admirable paper by Mr. Deck on daylight enlarging, which we printed some two years ago. In a lecture before the Photographic Society of New South Wales, which is reported in the "Australian Photographer," he deals in a thoroughly practical manner with getting quality in bromide work. The first part is given below.—Ed.

ANYONE who has once mastered the carbon process, and who has experienced the wonderful quality that that process gives, is apt to sigh for some means of producing large prints without losing this quality. When, however, he tries to enlarge on to bromide paper, he is woefully disappointed with the loss of quality which usually results. In order to overcome this loss of quality, it is necessary to study the bromide process very carefully to ascertain the causes for it.

It is quite possible, I think, to obtain just the same quality as in the carbon process, but few obtain it. The power of producing enlarged pictures is really, to my mind, the *raison d'être* of bromide paper.



The Fishers. *By Edwin Marks.*

Bromide paper is also elastic in its results and in its contrast, and is easily controlled locally, perhaps not so readily as some other materials, but these entail the making of enlarged negatives, in which even the most skilled amateurs admit they find it difficult to preserve all the quality of the original negative. Moreover, since the advent of the bromoil process this disability is removed. The bromoil process, however, demands a perfect bromide print, and hence this article should indirectly help the latter process.

A Common Experience.

Before going into the causes which produce this lack of quality in bromide paper, I will describe an experience which I think is common to all who have made bromide prints.

Having bought some matt bromide paper, and having made some prints which, after fixing, appear just perfect in the washing water, and after congratulating one's self on the quickness and facility with which they have been produced, they are pinned up to dry. On examining them later when dry, one's feelings are of a different nature, and the process is roundly abused. The prints seem to have lost their life, have become darker and flatter, and one feels inclined to consign them to the dustbin. Drying, then, is one of the causes of lack of quality.

Now, what has Happened?

On careful inspection we notice that the shadows, which were full of gradation when wet, have become blocked up. What I mean by this is that when the print is wet, one particular spot in the shadow portion may be very black, and another spot not quite as black in comparison, but when the print is dry these two portions have levelled up and become uniform, both being dull black in tone. The reason is that the gelatine of the emulsion when wet is somewhat translucent, and this makes it possible to see some of the silver deposit which lies in the deeper layers of the film. On drying, the gelatine becomes more opaque, and the two tones accordingly approximate to one another.

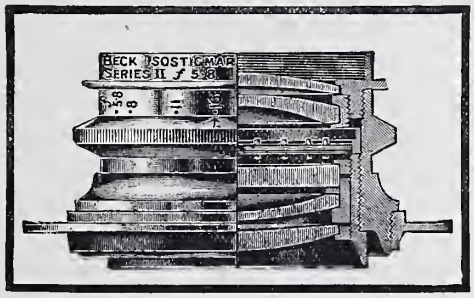
In platinotype, as there is no emulsion, this blocking up of the shadows does not occur to the same extent, and this is why one is able to obtain a more intense black on a smooth matt surface in the platinotype process than can be done with matt bromide paper.

We notice also that after this drying the lighter portions of the print have become very slightly darker. The nett result is that the bromide print has lost contrast and become darker.

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To Prevent Loss of Brilliance.

The remedy for this loss of brilliancy, when using a smooth matt paper, is to make allowance in making the print, and to give such an exposure that, when the print has been developed to the limit and fixed, it will appear rather too hard and a trifle too light in result, especially if we intend to make a dark print; for it is easily apparent from the above that prints which are intended to be dark will alter more on drying than prints intended to be light.

Now this loss on drying varies with the paper used, and when a glossy paper is used there is very little loss of brilliancy indeed, because the emulsion is very much more transparent. Also, as it is unnecessary to make the print a little too plucky to allow for the drying, one can use a softer negative; hence, for a negative slightly on the soft side a glossy paper is preferable. The surface of a glossy paper, however, is conspicuous except when framed behind glass, and so between these two extremes we have the half matt or carbon surface papers which have become so popular of late.

These papers lose little brilliance on drying, and are a great boon indeed. The surface approximates carbon more or less, some papers being a little more glossy and some a little more matt. Even with these papers in dark pictures there will be a slight flattening, hence it is wise to keep them on the light side. The degree of flattening given by these papers is now comparable to that of platinotype paper, and one can get as intense a black as in platinotype, and not the dull black given by the dead matt papers.

Steaming the Prints.

Some platino-matt bromide papers will exhibit this carbon surface if steamed over the spout of a boiling kettle when dry, as suggested by Mr. J. M. Sellors in the "American Annual of Photography." I think bromide workers are very much indebted to Mr. Sellors for the idea. Only papers with a slight grain should be thus treated; smooth matt papers are not pleasing when steamed.

Loss of quality may also be due to the use of a negative unsuited in contrast for the process. This cause, however, is common, more or less, to all printing processes. But the bromide process scores in that it is easy to increase or decrease contrast to compensate for the negative, as will be described later. For contact printing or enlarging by daylight on bromide paper the negative should be decidedly plucky; in fact, such a negative as is required for the platinotype process and for carbon paper sensitised in the Bennett citrate bath. For enlarging by artificial light (such as the Welsbach burner) the negative should be thin and very soft; in fact, just such a negative as is required for Seltona or a soft gaslight paper.

When such a negative is used, the best result is obtained by giving the correct exposure and developing the paper to the limit and fixing. If the exposure is too great, on development to the limit, the print will be too dark on fixing; but if too short, in both cases the print will be too light when fixed, provided that the negative is of the right amount of contrast. Under-exposure will not produce a contrasty result, as is sometimes stated.

We see, then, that there is one, and one only, correct exposure which will faithfully reproduce the gradations of the negative. Over-exposure and short development with normal developer is a very common cause of loss of quality, producing flatness; but if the plan of developing the test strip to the limit and judging the exposure from its density in the fixing bath be adopted, this cause will be eliminated.

I find amidol a very convenient developer, as it gives an image very favourable for toning. I make the solution fairly strong, so that complete development does not take more than one minute, as I find that if it takes two or three minutes one is apt to become impatient, and take the print out before development is complete, to its detriment. In summer I use amidol 8 grains, anhydrous sodium sulphite 40 grains, water 4 ounces, to which I add 2 minims of 10 per cent. potassium bromide. In winter I use double this strength to compensate for the cold.

Measuring not Weighing the Chemicals.

I do not keep the sulphite in solution, but measure it out in the following manner: I tip the amidol into a dry minim measure up to the 20 minim mark (this gives me 8 grains of amidol), and without tipping this out I tip in the anhydrous sodium sulphite up to the 80 minim mark (this gives me 40 grains of anhydrous sulphite); both are then tipped into 4 ounces of water and 2 drops of 10 per cent. potassium bromide added. This is much quicker and easier than weighing, and is quite accurate enough. A Watkins factor of 6 will give complete development.

This developer works well on gaslight paper, and has the advantage of always being fresh.

Another cause of loss of quality is that of overworking the developer. It will be noticed, if a number of prints are developed with a limited quantity of developer, that, although the first prints will be good, the succeeding prints will lack quality, and also that if the prints are toned by the sulphide process the first prints will tone to a good sepia, but the last prints will tone to an unpleasant yellow ochre. It should be noted that some of the intermediate prints may look well before toning, but on toning there will be greater loss of quality than one would expect from the appearance of the black and white print. It is better, then, to use a limited quantity of fresh developer for each print, especially when making enlargements. This precaution will ensure the certainty of any after toning process.

It is well to note here that prints that have lost quality through overworking the developer will tone well by the mercuric iodide-sulphide process, or they may be improved by toning in a gold sulpho-cyanide bath, as used for P.O.P., made very strong.

The Week's Meetings.

MONDAY, SEPTEMBER 6TH.

Kinning Park C.C. Committee Meeting.
Walthamstow P.S. "Cloud Taking, Making, and Faking." R. G. Rolfe.
Wallasey A.P.S. "Enlarging." Members.
Batley & D.P.S. Hay Beck.
Southampton C.C. Lantern Slide Competition.
South London P.S. "Night Photography." A. H. Blake.
Bowes Park & D.P.S. "Composition." C. Peacock.

TUESDAY, SEPTEMBER 7TH.

Nelson P.S. "The Oil Process." G. E. H. Rawlins.
Nelson C.C. "Development of Unknown Exposures." F. Hartley.
Manchester A.P.S. "Faking in Oil." H. B. Bradley.
Handsworth P.S. . Development Demonstration.

WEDNESDAY, SEPTEMBER 8TH.

Everton C.C. "Cloud Photography." A. W. Cooper.
Ashton-under-Lyne P.S. Committee Meeting.

THURSDAY, SEPTEMBER 9TH.

Watford C.C. Systems of Development.

SATURDAY, SEPTEMBER 11TH.

U. Stereoscopic S. Kingston to Hampton Court.
Bootle P.S. Harvest Studies.
Queen's Park A.P.A. Carmunnock.
Glasgow S.P.A. Hamilton.
Paisley P.S. Hamilton.
Hackney P.S. Battles Bridge.
Preston C.C. Fleetwood.
Oliver Goldsmith P.S. "Epping Forest."

MONDAY, SEPTEMBER 13TH.

Attercliffe P.S. "Lantern Slide Making." A. Groves.
South London P.S. "First Steps in Bromoil." H. E. Gorfin.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

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"The time has come, the Walrus said, to talk of many things."

YOU can take it slick and straight from me, right here and now, that there's going to be a hot time in the old African jungle in a brace of shakes. There is going to be real trouble among the hippos and rhinos. A galoot is after them with spiked shoes, you bet, and by thunder he's got just the real cutest photo kit you ever saw. It licks creation. If you haven't heard about it you just squat right where you are and I'll put you wise.

* * *

Please excuse my talking this gibberish. I will now pull myself together and revert to my usual polished periods while I describe the latest photographic outing. It is an American concern, of course, and it was reading about it that resulted in my breaking out into the above ghastly jargon. Five minutes of an American journal always has the effect of temporarily robbing me of the power of decent and intelligible speech.

* * *

You must know then, dear readers, that an expedition fitted out as described below is to go through Uganda in the footsteps of Mr. Roosevelt for the purpose of taking photographs of the various wild beasts of the forests, deserts, and jungles. I don't know whether you have heard of Mr. Roosevelt, but from what little I have been able to learn of him I should say that his are the very last footsteps in which a photographer should follow in the hope of finding animal studies for the camera. Mr. R. (which his Christian name is Theodore) has a pleasing habit of smiling at any wild beast he meets, and if the brute does not at once drop dead he shoots it. He seldom has to fire. His feet are such that they mark a perfectly plain track through Uganda, and along this mighty road the great expedition is to march with the following outfit: Three balloons, twenty-three cameras, kinematograph, 10,000 feet of film, 6,000 plates and films, electrical plant (in bloom), a whole shop of chemicals, 600 flashlight cartridges, forty box kites, ten high wind kites, ten tons of sulphuric acid, ten tons of steel filings, and a dozen or so of gramophones. The object is to get a photograph of a lion, if by chance one has escaped Theo's smile.

* * *

The head and front of this little expedition is Mr. W. D. Boyce, who is described as a gentle-faced, soft-voiced man (the dear), with the forehead of a born organiser. I do not know what sort of a forehead that is, but I trust the rhinoceri will recognise it, and respect it, and not be rude to the gentle owner. The lions also must be good enough to remember that he is a millionaire and the editor of the trenchant "Chicago Saturday Blade," and I hope they will behave accordingly. He is not going to potter around with the cameras and kites himself. He has hired for a year that world-renowned photographer Mr. G. R. Lawrence (of course you know George?) to whom he is paying £20 a day. This is quite respectable pay, as things go, for a photographic operator, and I should like it to be known that for a similar remuneration I am quite prepared to join the procession as assistant, just to push up the balloons and keep the hippos out of the sulphuric acid.

* * *

There is one piece of economy which I regret to notice in a millionaire's photographic cost of outing. The 400 porters who are to carry the iron filings and chance their luck with the lions are to be rewarded for a specially hard day's work by a gramophone record or Caruso or Tetrazzini, or in the alternative by a kinematograph display. This is hardly as good as George's £20 a day, and I shall be heartily glad to learn that the 400 porters have eaten the seven white men and presented their outfit to the beasts. A lion fortified by a meal of 10,000 feet of film and a dozen box kites might safely face the smile of the mighty Roosevelt.

* * *

Some of the magnificent and original photographs of Uganda animal life are to be obtained by hauling cameras into the air by means of balloons and kites, the former inflated with hydrogen obtained from the sulphuric acid and iron filings, and the latter rising through the cheaper agency of the Uganda breezes and American gas. Some of the cameras are only of postcard size, and these will not be expected to show very many animals per exposure, but others measure 22in. by 55in., and it is anticipated that a single plate exposed in one of these will present a zoological concourse that will make the procession into Noah's ark look sick and silly. I fear the anticipation is not warranted.

* * *

Other photographs are to be taken at night by a different method entirely. A carcase, such as that of a mouse or a black porter, is to be laid temptingly in the jungle and surrounded by six cameras each fitted with an automatic flashlight (see list). The expedition will lie (if it *can* lie) at the prudent distance of two miles, with microphones to its ears. When it hears the sound of the lions roaring and fighting over the wishbone of the mouse or porter it will pull a string. Off will go the six flashlights and the six cameras will make their six exposures. George will have earned his £20 for the day, and the editor of the "Chicago Blade" will put on a Caruso record for the 400 porters. Next morning the lions will call round for a picture postcard of themselves, and pay a tribute of respect to the born organiser's forehead of W. D. Boyce, while they join G. R. Lawrence in a tiddly from the sulphuric acid barrel.

* * *

The whole thing is stupendously impressive. It has given me a new outlook on photographic work in the animal world. Until I can join an excursion to Uganda I shall be a discontented man. The Zoological Society's Gardens at Regent's Park have henceforth no attractions for me. I would as soon go to Manchester. I shall never be happy again until I have soared in a balloon over Africa with a 22 by 55 camera, been wafted over Uganda with a kinematograph on the tail of a box kite (which I know has no tail), and pulled the string of six flashlights to scare a pack of ferocious lions nibbling the vaccination marks off a dead porter. Will not some kind reader who is a millionaire and has a born organiser's forehead take pity on me and gratify my ambition? I do not ask £20 a day; £19 and a few iron filings will satisfy me. I am not greedy, only ambitious. Meanwhile, I am ordering in advance a year's set of issues of the "Chicago Saturday Blade."

THE WALRUS.

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The Seventeenth Photographic Salon.

What the Salon should be : how far the present Exhibition succeeds : the resignations from the Ring and their effect upon this year's show : the D. O. Hill collection.

ELSEWHERE this week we review the exhibition of the Photographic Salon, which is now open at 5a, Pall Mall East. We have been accustomed to look to the Linked Ring each year to show the latest advances in photographic pictorialism, and, with exceptional lapses into the orthodox and stale, it has done so. On this occasion it is difficult to determine whether the Salon stands for modern art as far as it finds its medium of expression in photography or whether it does not. If it does, then what progress has been made since the autumn of 1908 has been very slight, if, indeed, the motion has not been retrograde.

Our meaning will perhaps be better understood when we point out that there is nothing in the exhibition this year which would not have been accepted without surprise or comment as being quite in the ordinary order of things four or five years ago. New men have taken the places of some of the older workers, but they are showing much the same class of thing dealt with in much the same way. Many of the older ones have dropped out entirely. Puyo, Davison, Henneberg, Steichen, De Meyer, Coburn, Stieglitz, Clarence White, and Kuhn are entirely unrepresented, while Demachy, Job, Mrs. Barton, and David Blount have only one picture each, and that but an echo of what they have done in the past.

Who are the New Men?

is the question which is asked, but answer there is none, or at least very little. Are we to assume that pictorial photography is at a standstill, and that the Salon shows no advance because there has been none? And if this assumption is incorrect, how is it that the Salon has lost touch with the newer phases? It will not do for its organisers to sit down and say, "We have given you a good exhibition; what more do you want?" From the Linked Ring much more.

The position of the Photographic Salon amongst other photographic exhibitions is one upon which there seems to be a good deal of misunderstanding. Last year, for example, there were writers who spoke of it as if it were a failure, judging it from precisely the same standpoint as they judged the exhibition of the Royal Photographic Society, or those of any of the other camera clubs dotted about the country, and in taking this view there is no doubt that they sincerely believed that they did so in the best interest of the Salon itself.

One of the Very Best Exhibitions.

Yet the case was almost exactly the reverse. Those best qualified to judge, and by this phrase we do not mean the scribes who contribute columns to the lay press or empty the contents of their notebooks into the vacuous columns of minor journals, but the men who would be picked out as representatives of the highest in pictorial photography in this country, were unanimous in declaring it one of the very best, if not actually the best, that the Linked Ring has held. There were, it is true, a few pictures on its walls that were obviously there for reasons other than should have actuated the selection committee, chiefly a desire not to exclude absolutely the work of men who had supported the Salon in the past, however little it may have merited acceptance. But with the exception of a score, perhaps, there was nothing displayed that did not deserve its place there for the definite artistic purpose and feeling which had brought it forth. Never, certainly, was the Salon exhibition more interesting

MEMORANDA *for the week.*

In this space we announce, as occasion arises, things which in our readers' interests they would do well to note.

than it was in 1908; and never did it do more to justify its existence as a distinct exhibition for the display of the most advanced work—work which would not be likely to secure acceptance elsewhere.

Those who judge it from the standpoint of orthodox, and slightly commonplace, photography seem to be unconscious that in doing so they afford an excellent reason for its discontinuance. The display of such work is provided for, and provided for most amply, by the R.P.S. and kindred exhibitions; and the Salon, as acting as an outlet for work which would be welcomed by the Royal Photographic Society at the New Gallery, is simply redundant.

Marking Time Impossible.

The Salon if it is to flourish must be where its founders put it, in the forefront of pictorial photography. This is not a position which can be maintained by marking time, but one which calls for continual progress. In the course of that progress, many who have been valued supporters in the past must of necessity be left behind; and the inclusion of their work, merely because it is theirs, while it does them no good, does the exhibition and pictorial photography harm.

The proportion of work of this kind included last year was small enough to be unimportant. Those who had been treated severely by the selecting committee made a great outcry, and then proceeded to justify the committee by showing the work which it had not accepted. Then followed the resignation of several of the very best and strongest workers who have ever been members of the "Ring," and this was followed up by the appointment of a selecting committee which, though very largely identical with that which acted last year, still contained the names of one or two who were regarded as representing the more academic. The work of this committee the public has now an opportunity of judging.

What is Missing.

It would be a very great mistake to suppose that the Salon can shed more than half a dozen of its leading workers without the exhibition being very much the poorer; and, to be quite frank, there is nothing which has been sent in this year by those who were more or less unrepresented last year which will counterbalance the loss of those we have named. To that extent at least it is out of touch with modern photography; and those Links who rejoice in the loss of these workers —and there are some who do so—are subordinating the welfare of the Linked Ring to personal considerations of a petty kind.

The exhibition this year contains a great deal which everyone who is interested in pictorial photography should make a point of seeing, and should certainly be visited by all those who can in any way manage to get to London to do so.

The work of D. O. Hill alone is sufficient inducement for anyone with a spark of interest in photographic art to pay at least one visit to 5a, Pall Mall East. If at the same time he will not see an exhibition as thoroughly representative of modern work as some previous Salons have been, he will at least find that several of the Links have made very strenuous and, on the whole, very successful efforts to make the exhibition an attractive one. R. C. B.



Readers in Greater Britain.

We are very glad to note that amongst our prize-winners this month there are more than one who hail from beyond the seas, an Australian competitor securing the silver plaque for a summer landscape with the fine picture we reproduce on page 213, while another from Bombay wins a certificate in the Advanced Workers' Competition with an Indian market scene. In fact, Australian, Indian, and South African photographers have been well represented in our competitions lately, and not a mail passes without evidence of the rapid growth of the circulation of *Photography and Focus* in Greater Britain. As all our competitions (except that for lantern slides, where weight and fragility rather preclude foreign work) are announced far enough in advance to enable readers all over the world to compete, we hope to receive more and more work from afar as this fact becomes better known.

Hypo-alum Toning for P.O.P.

During the last few weeks we have received several enquiries on this subject. It may perhaps be remembered that a little more than a year ago there was a good deal of correspondence in our columns as to the best way of toning ordinary P.O.P. by the hypo-alum method, with which a number of our readers had been very successful. Different makes of P.O.P. seem to behave differently; but, so far, we have not found any make with which a pleasant brown colour cannot be got in this way almost free from any trace of yellowing in the whites, often quite free from this. The printing has to be very deep, much deeper than for ordinary toning, if the print is to be fixed first; but if it is to be put straight into the hypo-alum without fixing, the reduction is not so great. We prefer the former course; putting the prints for five minutes into a bath of hypo of three ounces to the pint, and then transferring them to the hypo-alum. This bath is made by taking a pint of the hypo solution of the just mentioned strength, and adding to it half an ounce of powdered alum. Any sediment that forms is left in the bottle. The prints remain in this bath until they have taken on an agreeable brown tone, when they should be gently rubbed with a tuft of cotton wool to remove a kind of scum which forms on the surface, and then washed in the ordinary way and dried. Whether such prints will be permanent we are unable to say; but some which were toned in this way twelve months ago have not perceptibly altered.

Phosphate Lantern Plates. A Suggestion.

On another page we review the Phosphate Lantern Plates of the Paget Co., and draw attention to the great transparency of the phosphate emulsion. One cannot but be struck by this, and it instantly suggests

that it might be possible to use such plates, or some similar product, for the Lippmann process of colour photography, in which the transparency of the plate is a most important condition. Certainly the experiment is worth trying, and we commend it to those who are possessed of a mercury slide for the Lippmann process. It would be necessary to learn whether it is possible to orthochromatise such plates, and, if so, how it is to be accomplished. Probably the same treatment, or something very like it, which has been found effective in the case of bromide emulsions, would answer with those of silver phosphate. The remarkably fine grain which seems to characterise the image on a phosphate lantern plate is all in favour of its use for the Lippmann method. We shall be glad to hear from any reader who tries the experiment whether it is successful or not.

I've sometimes heard it said "Two heads are better far than one,"
But four are far too many, where photography is done;
To help with my vacation plates, when I returned to town,
I sought the kind assistance of my friends, Smith, Jones, and Brown.

And so one sultry summer eve, I closed my dark room door
On four perspiring objects in a space five feet by four,
Eight willing hands were set to work, and soon we got things fixed,
And I, like my solutions, was inextricably mixed.

I tipped the dish, and then I flowed the fluid o'er a plate,
But as the image didn't show, we all prepared to wait;
Jones said "I'll take it easy, as 'twill take some time, that's plain,"
Then sat upon a tube of paste, which burst beneath the strain.

He didn't take it easy, for he stuck as hard as glue,
And, though the lamp glowed ruby red, the air around was blue;
Smith trod upon a porcelain dish, which caught him on the shins,
While Brown discovered where I'd dropped some scattered dark room pins.

Then, in this pandemonium, amidst the wild uproar,
The pile of plates, which I'd exposed, went crashing to the floor;
My sulphide bottle got upset, and caused an awful smell;
The oil gave out, the lamp went out, so we went out as well.

I viewed the dark room floor next morn, where everything was scattered,
My dishes, measures, bottles, all, alike my hopes were shattered;
'Twas then I vowed, that next time, when I finish my vacation,
I'll practise my development in perfect isolation.

Portraiture for Amateurs.

The subject of photographic portraiture is one which never seems to lose its interest, and one on which most of those who do much practical work can have something of value to communicate. The paper which Mr. Jennings read before the Norwich Society, the first portion of which, slightly condensed, we print this week on page 218, will be found full of useful hints and suggestive comments for those whose taste in photography leads them in that direction. Mr. Jennings, it will be noted, draws attention to the limitations of the method of avoiding retouching by introducing slight diffusion of focus. One of the reasons why many amateur portraits are considered by the sitters to be unflattering is that the colour on the cheek, translated into monochrome by the photograph, often looks more like the shadow caused by a hollow than the natural colouring, and the model looks unnaturally haggard. Nothing but retouching will remedy such a state of things, when it is allowed to occur in the negative; but it can often be prevented by the use of a little powder.

It was Mr. J. S. Bergheim who advocated most strongly this retouching of the sitter instead of the negative; and it is a direction towards which amateur portrait workers would do well to look. It is a great deal easier, and certainly less likely to yield a false and unpleasant result, than actual pencil work on the plate—a form of handwork which few amateurs ever trouble to master.

Some Features of Next Week's Issue.

THE next issue of "Photography and Focus" will contain, amongst other matter of interest, an illustrated article by Mr. Dixon Hunt on photography in town. The paper on portraiture by Mr. Jennings, the first part of which we publish this week, will be completed. An illustrated contribution by Mr. Sydney J. Tayler describes an easy and effective method of framing small prints. An article which will appeal to beginners in particular is that "About Making Exposures" by Mr. W. Green. In addition to these, we hope to publish an article of the lens series having for its subject the Euryplan Series II. of Messrs. Staley, a further "Critical Causerie," and a note on three pictures by Mr. Allen Lonsdale, one of which took the silver plaque in the Advanced Workers' Competition recently.

The Seventeenth Photographic Salon.

Specially Reviewed for "Photography and Focus."

THE forewords of the catalogue of the Salon this year include a quotation from Dr. Johnson, "All work which lives is without eccentricity," and one is tempted to enquire whether this is intended as offering a good reason for paying an immediate visit to the show, so as to catch some of the photographs while they still live. Because there is much here that is unquestionably eccentric; although on the whole, perhaps, this essential ingredient in the Salonic cauldron is not quite so liberally provided as it has been on some other occasions. The American contingent has vanished, and with it has gone much that is eccentric, and—we are compelled to admit it—much that has hitherto made the Salon attractive. In its place we are offered a good few pictures which we might very well have been spared, and an historical collection which we should be very sorry indeed to miss. The only fault of the set of twenty-eight pictures by D. O. Hill, which occupy the end wall of the Gallery, is that they make much of the modern work look thin and feeble. They provoke the thought that there were giants, or rather that there was a giant, in those days, those days being nearly seventy years ago. But more of this later.

One of the first pictures we noted on entering was "A Pillared Shade, High Overarched" (No. 5), by Mr. F. H. Cliffe, an architectural piece flawless in technique and very much like some of Mr. F. H. Evans's that have hung here in the past. Mrs. Kasebier's portraits, Nos. 6, 7, and 9, are far from reaching the level she attained some years ago, and except that they represent her, might well have made way for other work. The "Windmill" (No. 10) and "Off Yarmouth" (No. 11) by Mr. J. H. Anderson are large, but little more, and it is not until No. 17, "The Viaduct," is reached that anything notable is encountered. In this powerful yet simple landscape, Mr. Archibald Cochrane is seen at his best. Demachy is represented by a single picture, "St. Pol de Leon" (No. 21), in which the interest is curiously divided between two groups of figures, and the effect as a whole weak. "Bruges" (No. 25) is one of Mr. Mortimer's best, though "The Mill on the Dyke" (No. 76) runs it very close. The London views by this worker we do not care for so much. Walter Benington has not done anything better than "The Cab Rank" (No. 39), an interior at one of the big railway stations, with a distant glimpse of daylight beyond.

The reputation so suddenly attained by Mr. Arbuthnot will not suffer by some of his this year's work, although in this we do not include the portraits, a branch of photography in which he does not seem at all at home. "La Laveuse" (No. 43), "Chateau Galliard" (No. 44), and "Decorative Landscape" (No. 41) are his strongest exhibits this year, though "A Thames Wharf" (No. 53), with a fine unconscious group of workmen, is also very successful. Mr. J. Dudley Johnstone's exhibits are more commonplace than we expect from him, the best, perhaps, being the very blue "Venetian Impression" (No. 47).

The most striking individual exhibit is that by Mr. Craig Annan, with its powerful portrait of "Wm. Strang, Esq., A.R.A., LL.D." (No. 72), the quiet reposeful "Bolney Backwater" (No. 58), and the strange snow scene, "The Ruined Castle" (No. 68). Close by these hang three pictures by Mr. Frank H. Read, far in advance of anything he has hitherto shown, which, if we remember aright, has been in collaboration with his brother. The best of these, "A Silhouette," shows a boat under some trees silhouetted against a patch of very real sunshine on the water. One cannot help contrasting this sunlight with the very artificial and crude white patches which Mr. F. H. Evans calls "Spilt Sunshine" (No. 29), in which this clever worker is seen to great disadvantage. In fact, Mr. Evans this year is not at all well represented either in his landscape or in his architecture. The portrait, "Hubert Bland" (No. 32), is most like what we hope to see from him, but a most disturbing and unrestful work. Mr. Bland was on the point of doing something violent when arrested by Mr. Evans's camera, and the result is a portrait which may be lifelike, but is anything but agreeable.

Mr. Alexander Keighley's work is very different from the large and rather laboured pictures which he has shown in the past. It has lost a good deal of its sensationalism, and, apparently, a good deal of its handwork, and the purely photographic character of "The City on the Hill" (No. 96) is a pleasant change. Mr. Harry Wild in "The Crucifix" (No. 97) has a very telling landscape, and near at hand is a characteristic portrait (No. 100) which constitutes the sole exhibit of Mrs. Barton.

Amongst the exhibitors of many prints is Mr. E. O. Hoppe, who shows nine portraits, that of "Father Bernard Vaughan" (No. 85) being perhaps the best, but none are of any great distinction. Mrs. Cadby with a "Cobweb" (No. 113) and Mr. Will A. Cadby with three delicate dainty and quite characteristic works close the procession of the moderns; and it is well to finish the inspection of the works of the photographers of 1909 before looking at the collection of Hill's portraits of 1845 or thereabouts.

For there is no doubt about it, these prints, many of them the original silver prints of the time, are in a class apart. The suggestion to include them came, we believe, from Mr. George Davison, and has added an interest to this year's Salon, which it certainly needed. The collection itself is lent by Mr. J. Craig Annan and Mr. Andrew Elliott, and numbers twenty-eight. But "who was D. O. Hill?" some reader may enquire. The catalogue tells us.

David Octavius Hill was born in Perth in 1802, was a member of the Royal Scottish Academy, and a well-known painter of portraits when Fox Talbot introduced his Calotype process. Hill soon after received a commission to paint a group of the ministers of the Free Church, and realised that in the latest scientific novelty—photography—there was something that might help him very much in such a group, which would have to include over a hundred portraits. So interesting did he find his new occupation, that he devoted much of his time for the next two or three years to photography, and between 1844 and 1847 obtained a remarkable collection of portraits, which included most of his prominent Scottish contemporaries. Hill was interested only in the pictorial side of photography, all the technical details being dealt with by Dr. John Adamson, an expert chemist. The result of this collaboration is that while as works of art these early prints come as a revelation to many to-day, they were produced with such care and skill that a great many of them still have their pristine brightness and vigour. The original negatives, which are on paper, are in existence, and the publication of a collection of prints from them has been announced at intervals for many years. The finest exhibition of Hill's work was at the Crystal Palace Exhibition of 1898, where there was an alcove containing a collection of sixty-seven prints by this old master of the camera. Many of his portraits, as the present exhibition shows, more than hold their own with the latest work of to-day. Hill died in 1870.

Here we must, for the present, leave the Salon of 1909. It will remain open daily until October 23rd, from 10 a.m to 6 p.m., and on Wednesday and Friday evenings from 7 to 9.30. If not in any way a sensational exhibition, it is interesting both as a collection of modern work, and by the way this is contrasted with that of one of the great men of the past.



THE REV. H. O. FENTON much regrets that as he is leaving England for a year or two, he will be unable to deliver any of the lectures appearing against his name in the Red Book.

AN IMPROVED lantern screen has been brought out by Messrs. Zeiss. By coating canvas with aluminium powder, a much greater proportion of the light falling on the surface of the screen than with ordinary screens is reflected.

DEMONSTRATIONS OF ENSYNA. Secretaries who want an interesting item for their winter programmes should write, giving vacant dates, to Messrs. Houghtons, Ltd., 88 and 89, High Holborn, London, W.C.

AT THE SCOTTISH SALON the two invited exhibitors are, as usual, one from England and one from abroad. Mr. Charles Job is the English exhibitor, and the Brothers Hofmeister jointly represent the foreign guest on this occasion.

PRINTS FREE. A set of three silver prints of the same subject, taken respectively with the Aldis lens No. 2, with the same with the Trio, and with the same with the Duo attached, will be sent free of charge by Messrs. Aldis Bros., Old Grange Road, Sparkhill, Birmingham, to any of our readers who may send a postcard for them, giving the name and address, and marked "A.D.T." to show what is required.

LOCAL INTENSIFICATION. According to "Camera Craft" this can be carried out by means of the mercury-ammonia method. The mercury solution should be mixed with a little glycerine to prevent it from spreading too much, and just painted over the parts that are to be intensified. The point of a soft wooden toothpick is said to answer well for small areas. The negative is then washed thoroughly and blackened with dilute ammonia. One worker blackens his negatives by holding the well-washed negative, film side downwards, over the open mouth of a bottle of ammonia. He claims that this gives a finer grain than can be got by immersing the plate in the liquid.

"BEGINNERS SHOULD TAKE NOTES carefully," says A. H. Baird's "Photographic Chat." "Their very first outing may prove a great success, while their second one may prove as great a failure. And why? In the second outing they proceeded in exactly the same manner as they did in the first, giving the same shutter speed, using the same stop, selecting the same sort of subject; but, alas! they never gave a moment's thought to the fact that the day was now much brighter and that the sun was still higher in the heavens. And with what results? Every plate is hopelessly over-exposed, not a good one amongst them. A little consideration here would have averted such a mishap."

THE ROTHERHAM PHOTOGRAPHIC SOCIETY holds its exhibition on October 20th to 23rd, at the Drill Hall, entries closing October 11th. Entry forms can be obtained from the hon. secretary, Mr. H. C. Hemmingway, Tooker Road, Rotherham.

THE AVIATION MEETING at Rheims is the subject of some 300 stereoscopic Verascope views, which can be seen at the establishment of Messrs. Jules Richard, at 23a, Albemarle Street, Piccadilly, London, W., by anyone interested.

AN AFTER SEASON SALE is announced by the City Sale and Exchange, of 54, Lime Street, London, E.C. The catalogue, which contains 272 items, will be sent free on receipt of a postcard. These bargains may be secured either for cash or on the gradual payment system.

A COMBINED BATH. Demonstrating before the Nelson Camera Club, Mr. J. T. Brindle used the following formula for a combined bath:

	A.	
Water	...	10 ounces
Hypo	...	3 ounces
Gold chloride ...	...	2 grains
	B.	
Water	...	10 ounces
Lead acetate ...	...	2 drams

These solutions are dissolved separately and then mixed. The prints are immersed without any previous washing, are taken out when they reach the proper colour and washed for an hour. They are slightly darker and colder when dry. The bath will keep well in the dark, and the quantities in the above formula need not cost more than 3½d. or 4d. We quote from "Viewfinder" in the "Lancashire Post." The process, says Mr. Brindle, is very simple, and has never given any trouble either from double toning or from yellow stains.

FOGGED ROLL FILM NEGATIVES. In using roll film one is apt at times to take too great freedom with it, says "Camera" in the "Glasgow Evening Times," and so to cause some fogging at the edges of the film negatives. This is sometimes caused by inserting the roll in too bright a light, and so needlessly running the risk of fogging at the edges of the film, if no more. When it is remembered that the film loosens a little in the process, it will be understood that light will have a chance to get in that it had not when the film was tightly wound. In both inserting and taking out a roll, the film and black paper should be kept as tightly wound as possible until it is fixed down. When fixing down the end of the black paper, it is desirable to fold in a small piece; this will enable it to be more easily undone to fix down the end of the film if for tank development, or to remove the film if for development in the ordinary way. The fogging may not always destroy a negative or portion of one, but there are many cases where it has come very near it. The precautions suggested will be found entirely to prevent any chance of damage to the film, and make fogged film negatives a thing of the past.

THE HULL PHOTOGRAPHIC SOCIETY, we regret to learn, has lost by death one of its best workers, Mr. J. A. Foulds.

"SPIRIT PHOTOGRAPHY" occupies several columns of the "Port Elizabeth Advertiser" (the Cape), which quotes verbatim from *Photography and Focus* the reports of the "Daily Mail" Spirit Photography Commission.

NEW REFLEX AND FOCAL PLANE CAMERAS have been put on the market recently by the Emil Busch Optical Co., of 35, Charles Street, Hatton Garden, London, E.C. They form the subject of an illustrated price list, for which those interested would do well to drop a postcard.

COLOURING PHOTOGRAPHS. Owing to the success which has met the shilling boxes of Photo Tints, Mr. J. E. Lockyer, of 244, Evelyn Street, Deptford, London, S.E., has just put on the market a halfcrown set. This contains eighteen different colours, three brushes, and full instructions for their use. It is just the thing for those who want to be able to colour their prints and slides quickly and effectively.

EDWARDS'S CLEARING BATH for negatives which enjoyed for a long time a great popularity was due to Mr. B. J. Edwards, and had the following formula:

Alum	1 ounce
Citric acid	1 ounce
Ferrous sulphate ...	3 ounces
Water to	20 ounces

This not only removed all trace of pyro stain from the negatives, if it was applied soon enough after developing, but gave the image a fine black colour. If the negatives are allowed to get dry after fixing and washing, and before clearing, it is much more difficult to get rid of stain completely. Owing to the increased use of sulphites and metabisulphites, clearing solutions are now seldom required.

ART MOUNTING BOARDS. A new series of mounting boards, known as the Victoria Art Boards has just been introduced by Messrs. Houghtons, Ltd., of 88 and 89, High Holborn, London, W.C. From the samples which they have submitted to us, there is no doubt that these mounts will be welcomed by a great many of our readers who are on the look-out for a mounting material which shall be at the same time tasteful and inexpensive. They are cheaper in price than the Ensign art boards, which they are not intended to supplant, but rather to supplement. The Grosvenor Art Mounts, also by Messrs. Houghtons, are selected from the Ensign and Victoria mounts, and are put up, in sixpenny packets, in three sizes—8 × 6 (thirteen pieces), 10 × 8 (nine pieces), and 12 × 10 (six pieces). The Ruskin mounts, Messrs. Houghton inform us, continue to be very popular. These varieties of art mounting boards do not lend themselves to verbal description. All we can say is that they cover amongst them a very wide range of most suitable and effective mounting materials. The amateur of taste can depend upon finding something to suit him in one series or the other.

BUSINESS NOTICES.

Offices.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

Publishing Date.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

Subscription.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
Twelve months ...	6	6	Twelve months ...	10	10
Six months	3	3	Six months	5	5
Three months ...	1	8	Three months ...	2	9
Single copy		1½	Single copy		2½

Remittances.—Postal Orders, Cheques, etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

Advertisements.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1s.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

Box Numbers.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

Deposit System.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1s. for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2s. 6d. is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

Publishing Notice.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

EDITORIAL NOTICES.

Address.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

To Contributors.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

Prints for Criticism.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

Prints for Reproduction.—Reproduction fees are only paid for by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

Payments.—Articles and illustrations are paid for on acceptance.

Interviews.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.

Competition Awards.

Special Subject Competition.

THE entries in this competition, easy as was the subject — "A Summer Landscape" — were neither so numerous as usual, nor so good; in fact, the first thirty or forty prints in the Beginners' Competition were quite equal to the best in this, which, seeing that it is an open one, ought not to be the case.

AWARDS.

SILVER PLAQUE.—"Summer in the Big Bush," J. Williams, 18, Butler Street, North Richmond, Melbourne, Australia.

BRONZE PLAQUE.—"Sunny Glades and Shady Walks for Recreation Framed," Arthur G. Copping, Rembrandt House, Ebury Road, Rickmansworth, Herts.

BRONZE MEDAL.—'The Old Farm," John S. Barbour, 15, Cochrane Street, Kilbirnie, Ayrshire, N.B.

CERTIFICATES.—"A Landscape," R. G. F. Banks, 34, Watson Street, Hartlepool; and "Summer Sunshine," Frederick Evans, care of Ty Gynwyd, Llangynwyrd, near Bridgend, Glamorgan.

Beginners' Competition.

THE entries this month show a very large increase again in numbers, and we are glad to be able to add in quality also. In fact, this has proved to be quite a bumper competition, with many really excellent entries. As usual, a number of the competitors ignored the rules, many photographs coming to hand nameless, without coupons, over the limits of size, mounted, or in some other way violating one or other of the few and simple conditions we find it necessary to impose. Perhaps some of those competitors may read these lines and refer to the rules, which we print at least once each month, before sending in again.

AWARDS.

FIRST PRIZE. A signed copy of "The Complete Photographer." "Thoughts," by Mrs. C. K. Norman, Brantham Court, Manningtree.

SECOND PRIZE. A free subscription to *Photography and Focus* for twelve months. "Wet Weather," J. Tateson, 197, Providence Road, Sheffield.

CERTIFICATES. "Shrimps," Miss S. C. Burnside, Caithness, Shakespeare Road, Worthing; and "On Guard," Percy Milan, 61, North Street, Stamford, Lincs.

Advanced Workers' Competition.

THE entries this month are about up to the average, both in quantity and in quality. We note amongst them several from readers in India and Australia, and are glad to welcome competitors from these distant lands. The criticism is well in hand, and we hope to get all those prints which were accompanied by stamped wrappers or labels back to the senders within the next fortnight.

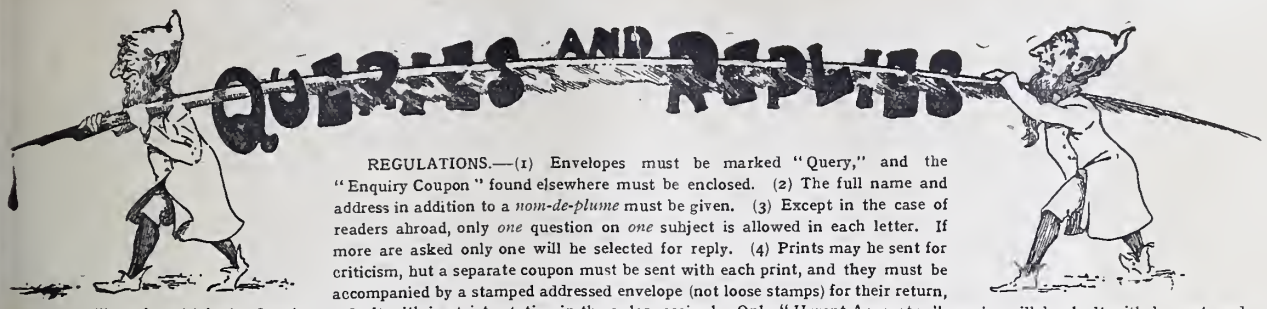
AWARDS.

SILVER PLAQUE.—"Minnehaha," Octavius C. Wilmot, 1, Forfar Street, Monkwearmouth, Sunderland.

BRONZE PLAQUE.—"A Dandy Start," Thomas Carlyle, 5, Bank Street, Paisley, N.B.

BRONZE MEDAL.—"A Devonshire Pilot," H. Marle, Stapleton, Bristol.

CERTIFICATES.—"At the Village Market," P. S. Joshi, 182, Kalbadevi Road, Bombay, India; and "The Old Lane," Francis A. Tinker, 43, Firth Park Road, Sheffield.



REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

BULB (Reading).—The latest day for receiving exhibits is past.

CAPT. BLAIR (Bombay).—Thanks for the card, which is very interesting.

J.H.M. (Chelmsford).—The initials stand for the firm of G. W. Wilson and Sons, of Aberdeen.

F. E. LLOYD (East Ham).—The crystalline salt is always referred to, unless the anhydrous is specified distinctly.

H. FORMAN (Brighton).—The idea is an old one and is based on a fallacy which it would take too much of our space to set forth in this column.

ANXIOUS (South Kensington).—If the shutter can be fitted, and we presume it can, there is no reason why it should not be used with the new lens.

J. WALKER DOWN (Piccadilly Circus).—If it is a shadow, it is altogether wrong. But we doubt if it is. On the original it looks more like a ridge and depression in the path.

COLOUR (Preston).—Any druggist will get gum dammar to order for you. We prefer to make the varnish with twice as much benzole as is given in Messrs. Lumière's formula.

BERT (South Shields).—The lens is as good as you could select for the purpose. Nothing would be gained that we can see by having one of longer focus and smaller aperture. Speed in such work is very useful.

GILCHRIST (Boston).—It is not possible to answer your enquiries in detail, as so much depends on the arrangement. Thin "butter muslin" is a good diffuser. Twelve incandescent burners may be regarded as a minimum.

E. PERRETT (Wallington).—We are unable to send individual prints to "The Bandit," as we have frequently pointed out. The "Messina" book is delayed, we understand, but as soon as we get any definite information we will publish it.

TREES (Thornton Heath).—The defect is halation, and is caused by light reflected from the back of the plate. If a backed plate be used, and care be taken not to over-develop, there will be no trouble on this score. The print sent was very much over-exposed.

CIVIS (Spalding).—You are making the very common mistake of supposing that poor tones are due to some error in making up the toning bath, and not to unsuitable negatives. No toning bath could give good colours from such weak negatives as those which furnished these prints. See reply to J. Faulkner. The formula given by the maker of the p.o.p. cannot be improved.

CLUBBITE (St. Helens).—The rule is as you say, and even the telephoto lens is not an exception to it; but in this case the "optical centre" is not within the limits of the lens mount, but in the air some distance in front of the lens itself. The Dallmeyer Calculator reviewed in these columns recently provides the easiest solution.

H. F. CHAPMAN (Paddington).—Carbon transparencies can be intensified by soaking them in a three per cent. solution of potassium permanganate. As this makes them a very non-actinic colour, one must be very careful not to overdo it. The gain in density will be found to be much greater in the enlarger than it is to the eye.

CLYST (Exeter).—A satisfactory glycin formula is the following:

Glycin	25 grains
Potassium carbonate ..	120 grains
Sodium sulphite (crystals)	120 grains
Water	10 ounces

It is used without dilution, and works well in a tank.

VICTOR (Tollington Park).—There is nothing in the formula to cause the stains, which are due in all probability to oxidation of the developer, by the print being exposed to the air while containing developer. It is not likely to take place during development, but generally happens during fixing or in the very early stages of washing. It is prevented by washing the print for half a minute in running water between development and fixation, and by taking care that it does not float up to the top of the hypo. The banded action of the stain is an almost certain indication of its origin, the print lying on the surface of the liquid, but not quite evenly.

H.W. (Newark-on-Trent).—Insufficient fixing is the cause, undoubtedly. There is no remedy.

R.K.G. (Upper Clapton).—"The Hand Camera," by Wastell and Bayley, price 1s. nett, or post free 1s. 2d., has been written to meet exactly such a case as your own.

GREENISH (Putney).—The cause is excess of bromide in the developer, which may be due to too much being put in at first, or may be caused by using the developer over and over again.

R.M.H. (Sheffield). — Nothing would be better than a camel hair brush. If it marks the surface when gently applied it is evidently not clean. Will not what little dust gets on it "blow off"?

J.R.E. (Nantwich).—Our own preference is slightly in favour of No. 1, but we should expect to find little or no difference between the work turned out by either. The lenses usually fitted to both work at f/8.

W. J. BRYANT (Barry).—The amidol formula given by the most makers of bromide papers, or the metol-hydrokinone formula given with gaslight papers gives the black tones of the sample sent, if the negatives are suitable.

DELTA (Pall Mall).—There is no reason why your results should not be every bit as good when you got used to the developer, which, although the final effect is the same, seems to act differently at first, the image tending to flash up.

IGNORAMUS (Bournemouth).—The exposure was correct, or perhaps a little on the full side, and the development correct for a printing process which calls for a vigorous negative. For ordinary p.o.p. or gaslight paper it is a little over-developed.

E.H. (St. Martin's Lane).—The outline has been lost from glare and halation. If the negative had been developed for about half as long, or less, no doubt it would have been visible, but such a subject demands a backed plate to be of any good at all.

A. H. SCARBOROUGH (Coventry).—The cause of the markings is beyond us; but the plate is badly fogged and wanting in contrast, and they are probably due to the same cause as the fog, which may be bad storage or unsuitable developer. It does not look like light fog.

V.G. (Churwell).—There have been one or two papers on the subject, in German, but we are unable to place our hands upon any definite references. Your only plan would be to make a search at the Patent Office Library. The subject is one of very limited interest.

HEW (West Kensington).—Many of the winning prints are on glossy p.o.p., but in the Advanced Workers' Competition the use of such a printing medium is a serious handicap. You are right, it is distortion of a sort, but no more than would be got by the orthodox method of keeping the camera level and swinging the back. No one calls that distortion.

W.G.J. (Glasgow).—"The Complete Photographer," by R. Child Bayley, price 10s. 6d. nett, or post free from our publishers 10s. 10d., and "Science and Practice of Photography," by Chapman Jones, price 5s. nett, or post free 5s. 5d., are what we should recommend. The former is the less advanced in character, and deals with the subject from the point of view of the amateur.

J. FAULKNER (Ramsbottom).—We know of none, and do not advise you to keep a toning bath made up. It is very wasteful of gold, as this is prone to precipitate out as a black sediment. No toning bath will give black tones on such weak prints as the one sent; and until you can make plucky negatives which give good, bright, strong prints you cannot hope to get good tones. The stain is due to some form of chemical dirt; we cannot say what has made it, but hypo is the most likely.

J. BROWN (Birkenhead).—The negative arrived smashed to atoms, but there were some streaks on some of the pieces which, we presume, were the fault referred to. They look to us as if some chemical or other had been rubbed on to the surface of the film; possibly impure packing paper caused them. Something similar would result were the film of one plate in contact with a gritty backing on another. We cannot see that temperature of the developer could have had anything to do with it.

INDEX (North Cave).—This is out of print; but an advertisement might get you a copy.

TOPSY (Ringwood).—Gross under-exposure is the cause. Try ten to twenty seconds with f/8.

WHISHT (Woodbridge).—It is made by Hoghtons, Ltd., 88 and 89, High Holborn, London, W.C.

TRUST (Kettering).—You must exercise your own discretion. It is not a matter on which we can advise.

ERNEST (Bowes Park).—Monkwood, Epping Forest, has as fine beechwood scenery as any place within fifty miles of London.

TREES (Swindon).—Pyro-ammonia is not at all the developer we should recommend for tank development. Pyro-soda answers very well.

T. FRENCH (Warrington).—The subject will be dealt with at length in a few weeks' time. We are much obliged to you for the suggestion.

BUYER (Sunbury).—Both are excellent, and you cannot do wrong by selecting either. There is nothing to choose between them, and we certainly could not recommend one to the exclusion of the other.

CARBON (Evesham).—The water used for developing has been too hot, or the sensitising solution much too strong in bichromate. Either would cause the network effect, which from that appearance is called reticulation.

F.T. (Walthamstow).—We have had no special articles on the subject. We have not heard that there are any special restrictions on photographing near the Needles on account of forts there; but perhaps some reader can say if this is so.

BOLTING SILK (London, W.).—We are constantly being asked where this can be got, as small dealers seem not only not to supply it, but often not even to have heard of it. Any big dealer will get it. It is listed by Kodak, Ltd., and no doubt many more.

ANERF (Earlestown).—You would do best to get a new outfit throughout, including the lens. It would cost as much or nearly as much to fit the lens to a new camera as you would get allowed off, as the one you have is one of the lowest priced lenses on the market.

SCOPE (Arundel).—The lenses seem a perfect pair, as the dimensions in the two prints are nearly alike as we can measure them. One is apparently a little higher on the front than the other, it is quite possible that this is due to their being wrongly fixed to start with.

E.H.L. (Feltham).—"Practical Retouching," by Drinkwater Butt, price 1s., or post free from our publishers 1s. 2d., will teach you all of the subject that can be learnt from a book which, to be frank, is not very much. It is a thing for practice, and, if possible, for personal tuition.

FACTORIAL (King's Lynn).—We do not know the factor, and cannot undertake experimental work to find it out. You had better get the Watkins Manual, and read the section of it which tells how to find out the factor, and then act on the instructions given. It is quite a simple operation, and well within the power of anyone who is sufficient of a photographer to prefer some other developer to the one recommended by the plate maker.

A. J. ABRAHAMS (West Hampstead).—The method usually adopted is merely to enclose the print, which must be a more vigorous one than if it is to be mounted in the ordinary way, between two glasses. If it is to be struck down, glass and print are immersed in a three to five per cent. solution of gelatine, squeegeed into contact, the face of the print towards the glass, and allowed to dry. We know of no satisfactory way of mounting with varnish.

ANXIOUS TO LEARN (Hatcham).—The best way to find the infinity mark is to focus some distant object, in a landscape for choice, and then rack the camera outwards until the distance is just beginning to get fuzzy. The camera will then be at the best extension for the infinity mark, and you can notice the distance of the nearest objects that are in focus. For the true "infinity" mark the distance should be sharply focussed and the camera left at that, but this limits the user to comparatively distant views only.



Bromide & Gaslight Papers.

A Simple Method of Control in their Development.

By John Sterry. Honorary Fellow of the Royal P.S.

Special to "Photography and Focus."

Exact Exposure no Longer Needed.

IT is now very generally recognised that to obtain the best effects by the usual methods of development, bromide and gaslight papers must be accurately exposed, and this must be followed by full development. The exposure limit on either side is very small, probably varying from about threequarters to one and a quarter times the best exposure.

The method to be described herein is the exact opposite, over-exposure being corrected by partial development. So long as at least the correct exposure for ordinary development be given, good black prints may be obtained on bromide papers with any exposure up to twenty times that exposure or even more. When the prints are being developed, those which have had the most exposure will be the first to be finished, the others following in regular succession; while any that may have had only the normal exposure will at length be developed exactly as if full development had been given in the ordinary way.

This being so, it is evident that no trial exposures will be needed, as it is easy enough to determine an exposure that would come within such a range as one to twenty, all giving good results. In enlarging, especially with daylight, which often varies greatly in a short time, such latitude must have a very great advantage.

Bromide Papers.

The alteration required to carry this out with bromide paper, and to obtain good black tones, is so simple that it is strange that it has escaped attention. It is only to add a considerably larger proportion of bromide than is usual, so as to give more time in the development.

For instance, taking the amidol developer for bromide papers given under "Tested Formulæ" in the Red Book of "The Affiliation of Photographic Societies" Annual for 1909-10, which stands thus—

Sodium sulphite	35 grains
Potassium bromide	½ grain
Water to	1 ounce when dissolved
Amidol	2½ grains are added

it is only necessary to make the bromide 5 to 10 grains to the ounce to obtain a fairly good developer for this method of controlled development.

However, so far as various forms of developer have yet been tried, preference must be given to an acid amidol formula. (Probably diamidophenol will answer equally well, but it does not seem yet to have reached South Australia.)

The following, which is simply a developer arranged for the development of negatives with the addition of a considerable quantity of bromide, has proved fully satisfactory in the controlled development of papers of Australian make, and a few English ones which have been obtainable.

STOCK SULPHITE SOLUTION.

Sodium sulphite	2 ounces
Sodium or potassium metabisulphite ...	90 grains
Water to	10 ounces

FOR USE.

Stock solution	1 ounce
Water	3 ounces
10% potassium bromide	45 minims
Amidol	8 grains

The quantity of bromide given has been arranged so that the development of fairly long exposures may not be too rapid to be at once stopped when the desired result is reached, and at the same time not sufficient to bring about deterioration in the blacks, which so readily, in ordinary development, are found to become greenish under the influence of bromide.

In practical working the following has been found to give satisfactory results with all the bromide papers tried, rapid and slow:

With an average negative, half an inch of magnesium ribbon burnt at a distance of nine inches from the negative has invariably been found to give an exposure coming within the range of development.

It is then found that an entirely new result is obtained; for all the prints from different negatives, if they have been withdrawn from the developer at the proper moment, will have the best gradation that the particular negative and paper can give.

Thus, if the prints are too black and white and lacking detail in the high lights, the negative has been over-developed to suit that particular paper. It would, therefore, probably give a better result with a more rapid paper with longer scale of gradation, or the negative might be reduced. On the other hand, if the result is too soft, then a slower paper would probably answer, or if that were preferred the negative might be intensified.

Before passing to the working of gaslight papers, it may be noticed that the method described allows of the dark room being much better lighted, without any chance of fogging the paper, which, seeing that the print must be watched so that it can be removed from the developer as soon as it is seen to have reached the desired stage of development, is a very great advantage.

Gaslight Papers.

These are of two different kinds—the ordinary for black tones, and a special make of slower paper, on which varied colours can be obtained by simple development. In the controlled development of the ordinary gaslight papers, the only difference required in the developer is that a larger proportion of the ten per cent. potassium bromide is needed to keep control over very long exposures, which otherwise develop much too quickly to allow of being removed from the developer at the exact time required. Dilution also is effective in this direction, but the addition of more bromide seems to be preferable.

As, in order to obtain good prints, these papers usually require negatives which have not been developed so far as those used for bromide contact printing, they will generally be thinner, so that exposures with gaslight papers may be

made in the same way as has just been described for bromide paper, with half an inch of magnesium ribbon burnt at nine inches from the negative.

The developer is made up as for bromide papers, and will have sufficient control over exposures from one to sixteen times the normal. There will not be found nearly so long a range of black as in the case of bromide papers, and this is not the same with all makes of papers, owing probably to varied proportions of bromide and chloride in the emulsion; but in all the black becomes warmer as the exposures increase, gradually passing into various shades of brown and sepia.

There is also a gradual change in gradation, as the longer exposures give softer results than the shorter, thus requiring a slightly more fully developed negative if a long scale of tones is to be represented.

The colour seems to be governed partly by the quantity of amidol and bromide, as well as the exposure, but by keeping all three alike, similar results are obtained in printing from the same negative, so that the shade of colour may be chosen as desired for a number of prints. Different developers give somewhat varied results. Thus ortol, as might be expected, owing to its tendency to brown tones, gives much richer colours at the same exposure than either amidol or rodinal.

Special Gaslight Papers for Colours.

As only one appears to be stocked in Adelaide (Gravura No. 2) nothing can be said as to how different papers compare one with the other. The makers of this do not advise the use of it for blacks, though the minimum exposure will give a good black, when as little bromide as possible is used; but there is but little latitude, the colour soon altering with increase of exposure.

The full range of colours, which is much greater than with ordinary gaslight papers, is obtained without any change in the developer beyond a further increase in the bromide when development is too rapid. With the very long exposures dilution is sometimes advantageous, and a more strongly-developed negative will be needed. However, ortol is to be preferred, and the following formula has proved very satisfactory:

Stock Solution A.		
Ortol	70	grains
Potassium metabisulphite	35	,,
Water to	10	ounces

Stock Solution B.		
Potassium carbonate ...	½	ounce
Water to	10	ounces

Equal parts of A and B are taken, and one-tenth part of ten per cent. potassium bromide solution.

This paper is so much slower than any of the ordinary gaslight papers that the exposures for sepias and reds are most readily obtained by giving a few seconds exposure in subdued daylight. Exposures made with half an inch of magnesium ribbon at nine inches usually come within a range giving satisfactory prints.

These results will remind many that nearly twenty years ago Mr. Alexander Cowen made a series of lantern slides in which the colours ranged from black to ruby, using a developer more and more restrained with bromide, as the exposure was increased; and more recently M. Balagny has given an acid amidol formula for lantern plates to obtain similar colour results.

To Sum Up the Results Obtained.

All ordinary negatives may be printed from any of the bromide or gaslight papers with an equal exposure, which for convenience has been taken as half-inch magnesium at nine inches distance.

A developer of ordinary strength as used for negatives is satisfactory when suitably controlled with bromide.

The prints, if withdrawn as soon as the shadows are strong enough, will (except in the case of very long exposures) have practically equal gradation throughout, and usually as good as the negative and paper can render.

The colour may or may not be that desired, but will be one from which the exposure required for the desired colour may be approximately ascertained.

So far as the production of blacks is concerned the old rule holds good still, that the exposure should be near the minimum, but there is a far greater latitude. With exposures several times the minimum the dark room may be much better lighted; in enlarging, internal reflections are harmless.

Colours obtained by development are completely under control and easily repeated under the same conditions.

Kulbari, Blackwood, South Australia.



Summer in the Big Bush. By J. Williams (Melbourne, Australia).

Awarded the Silver Plaque in the Special Subject Competition, just closed.



Stripping Negatives.

THE method of stripping the films from glass negatives for storage purposes, which was introduced by Mr. John Sterry by an article in our columns (*Photography*, Feb. 4th, 1908, page 100), is described in the current issue of "Camera Craft" by Mr. Lange, who supplements it with certain notes of his own as to the keeping of the films after stripping. As a good many of our readers may be unacquainted with Mr. Sterry's method, we will give a brief working description of it.

A saturated solution of potassium carbonate is prepared, and a quarter of an ounce of this, one dram of formalin, and one dram of glycerine are mixed with five ounces of water to form the stripping solution. The negative to be stripped is placed, dry, in this liquid and left therein for about half an hour, and is then put up, without washing, to drain and dry. When quite dry, the film should be cut all round, close to the edge of the glass, with a sharp knife, and then, one corner being lifted, it will be found that the whole of the film will peel off the glass quite easily. If at any place it should stick, it can be eased off by drawing a silk thread between the film and the glass.

Mr. Lange, in the article to which we have already referred, recommends the following procedure after stripping, if the gelatine film is to be preserved unmounted. It is first placed in water and washed; and as both sides of the film are exposed to the action of the water, the washing does not take very long. A piece of waxed paper is then slipped under the film while it lies in the water, and film and paper are withdrawn together, drained, and the surplus moisture is removed with fluffless blotting paper. The film is then put between two dry pieces of the blotting paper, and dried under slight pressure. The pressure should be just enough to prevent the films from wrinkling; a dozen or two of glass negatives make a suitable weight.

It might be supposed that when the film is pressed between blotting paper in this way that it would adhere to the paper; but Mr. Lange points out that the action of the stripping solution has so thoroughly tanned the film that it has lost all its adhesive properties.

The films so stripped should at least have their edges protected in some way. A simple method is to take a piece of paper of good quality and of a size a trifle larger than the film. A mask is cut from this paper, making the opening a little smaller than the stripped film, and then, with a brush, a line of gelatine is run round the edge of the opening, and the film fastened by its edges to this.

Where a large number of stripped films are to be preserved in this way, it is best to use sheets of paper of uniform size, and to leave the margin wide enough for data and notes such as are usually placed on negative envelopes. The opening may be of such a size and shape that the support will act also as a mask. The photographer in possession of such stripped films should remember that the carbon process is made much simpler when one can print from the reverse side of the film, and employ the single transfer method.

To mount the stripped film on celluloid, old celluloid film negatives may be employed. The gelatine film is removed entirely, and the celluloid thoroughly washed. Then the stripped and dry film negative is soaked in pure alcohol and



THOUGHTS. BY MRS. C. K. NORMAN.

Awarded First Prize in the Beginners' Competition, just closed.

mounted directly on the sheet of clean, dry celluloid. The alcohol softens the surface of the celluloid sufficiently to make the film adhere, but the addition of a little amyl acetate to the alcohol is even better. The curling is slight, but the danger of bubbles is great.

The gelatine film on the old celluloid negative may, alternatively, be used as an adhesive, the image being reduced away and the negative washed. The stripped film is floated in water, the celluloid is pushed underneath it and both are withdrawn together. The surplus water should be squeegeed out and the film dried as celluloid films are dried. The curling is exceedingly troublesome when films are mounted in this way. If the celluloid negative was originally treated with a hardening agent, like alum, considerable trouble may be experienced in making the film stick.

There is one very important caution, however. On no account should one use anything but a discarded negative until the method has been mastered. All methods are easy after they have been mastered, and all are difficult (in varying degrees) before they are mastered. Fogged plates or spoiled negatives should alone be employed until the photographer is sure of himself.

The Paget Phosphate Lantern Plates.

THE introduction of the Paget Phosphate Paper has been promptly followed up by the Paget Phosphate Lantern Plate, which we have had an opportunity of testing during the last few weeks. It is curious that the commercial practicability of emulsions containing silver phosphate should be so late in securing recognition by manufacturers, as the sensitiveness of that compound to light has been known for a long time; but now that the possibilities of the phosphate are being recognised, it bids fair to provide one of the standard photographic processes.

The first thing which the user of the Paget Phosphate Lantern Plates will notice is the unusual transparency of the coating on the glass. Lantern plates are always more transparent than the more rapid plates used in negative making, but one cannot fail to be surprised at the coating on these, which is only slightly opalescent. The gradual building up of an image of full vigour, where there seems to be so little visible material from which to form it, is very remarkable. Thin and transparent as it is, there is no difficulty whatever in getting an image of full vigour on these plates, and that without very long development.

The most convenient light for exposing we found to be magnesium ribbon, but daylight can also be used very satisfactorily. The exposure determines the tone of the slide; the longer the exposure the warmer the tone, no alteration in the composition of the developer being necessary to alter the colour. The warmer the colour, also, the shorter the duration of development. The filling and emptying of the frame, and the development, can be carried out without any fear of fog in ordinary artificial light, the actual time of development varying from about a minute and a half for a red colour to three or four minutes for a black. A very fine black, it may be mentioned, can be obtained by giving a minimum of exposure. Towards the end of development the image looks foggy, but this is due to the presence of the undeveloped silver phosphate, and the fogginess vanishes in the fixing bath. The developer we used was that given by the Paget Co. for the phosphate paper, consisting of metol and acetic acid; the plates were fixed in acid hypo of the usual kind. The fixing, although not so rapid as with some phosphate paper, is visibly complete in about a couple of minutes, when a thorough wash completes the operations.

The slides which are obtainable on these plates have no perceptible grain whatever. The image looks like a fine stain, and is extremely transparent and brilliant. No trace of clogging up of the shadows manifested itself. The range of colour was from a good black through a variety of purples, browns, and reds to a brownish yellow, which indicated that the exposure had reached its maximum limit. The phosphate plate seems to be very well suited to lantern slide work—at least as far as contact work is concerned.

We did not try reduction in the camera, but that a phosphate emulsion can be made sufficiently sensitive for reduction and even for enlarging is well known. We recommend the new product, made of course by the Paget Prize Plate Co., Ltd., of Watford, to the attention of our slide-making readers.

A New Sunk Mount for the Cooke Lens.

THE design of cameras to secure the greatest possible compactness has led to a demand for lenses in mounts somewhat different from those generally employed where a capacity to fold up into a very small space is not important.

This demand has led Messrs. Taylor, Taylor, and Hobson, of Stoughton Street Works, Leicester, to design a new form of sunk mount for the Cooke lens, and one of these instruments in its new mount has been sent to us for examination. We need add nothing to what we published only a few weeks ago concerning the Cooke lens, deservedly a favourite with those who can appreciate a fine instrument. But a word or two about the mount may be useful. This is so designed that the front surface of the front combination of the lens is only a very little in advance of the camera front; in fact, the chief projection beyond the flange is the hood. The edge of this is milled, and so allows the whole lens to be turned round in the flange. The latter is graduated for the iris diaphragm, which thus is opened and closed.

The workmanship of the new mounts is all that we have come to expect from its makers. We cannot say more. The prices may be gathered from a couple of examples. The 5in. Series II. f 4.5 lens sells at £5 5s., the 5in. Series III. f 6.5 at £4 7s. 6d.

The Week's Meetings.

MONDAY, SEPTEMBER 13TH.

Attercliffe P.S. "Lantern Slide Making." A. Groves.
South London P.S. "First Steps in Bromoil." H. E. Gorfin.

TUESDAY, SEPTEMBER 14TH.

Kinning Park C.C. Club Meeting.
Hackney P.S. "Outdoor Portraiture without Retouching." S. Woodhouse.

WEDNESDAY, SEPTEMBER 15TH.

Sheffield Friends' S.P.S. Annual Meeting.
Everton C.C. "Making Enlarged Negatives." J. M. Dulleham.
Worthing C.C. Coombes.

THURSDAY, SEPTEMBER 16TH.

Coalville & D.P.S. "Night Photography," A. H. Blake.
Fernhead W.G.P.S. "Developing Simplified." Johnson and Sons.
Queen's Park A.P.A. Monthly Meeting.
Tetbury C.C. Beverstone.
Watford C.C. "Slide Making by Reduction and Contact."

SATURDAY, SEPTEMBER 18TH.

Kinning Park C.C. Houston.
Halifax C.C. Colden Valley.
Boro. Poly. P.S. St. Paul's Cray.
Walthamstow P.S. Bushwood.
Chelsea and D.P.S. Cheam.
Queen's Park A.P.A. Inchinnan.
Willesden Poly. P.S. Aldenham.
Dennistoun A.P.A. Glasgow Cathedral.
Bristol P.C. Hanham and Keynsham.
South Suburban P.S. London.
South London P.S. Hampstead Heath.
Ashton-under-Lyne P.S. Lichfield.
Bowes Park and D.P.S. Regent's Canal Dock.

MONDAY, SEPTEMBER 20TH.

Walthamstow P.S. "How I make Lantern Slides." G. Willment.
Wallasey A.P.S. "The Lake District." Mr. Queen.
Bradford P.S. Print Night.
South London P.S. "Models I have Photographed." P. R. Salmon.
Bowes Park and D.P.S. "Clouds and Lightning Photography." H. Wilkie.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

THE weak point of amateur portraiture is not, as a rule, its amateurishness. On the contrary, that is its strong point. Its weak one too often lies in a sort of would-be professionalism. And this sincere-flattery imitation of the professional seldom takes the form of following his merits; more frequently the obsessed amateur seems deliberately to follow his faults. He strains to infuse into his portraits a suggestion of the professional's artificiality. He tries to get the profes-



A Portrait *By E. Manley.*

sional's "studio effects." He forces his sitters into what he imagines to be "professional" poses. The result is, neither the honest actuality of an amateur's snap-shot, nor the skilfully-contrived complimentary "likeness" of commerce.

"A Portrait" looks to me like an amateur's imitation of professional work. Perhaps it is genuinely the work of a professional; but as it was entered in the usual course for a competition I shall take it for granted that it is amateur in origin. The mere fact that I could mistake it for professional may seem a compliment to the producer. In a sense this is true. Far be it from me to decry the technical skill which has gone to the production of this print. But its faults are typically professional ones, as well as its excellences.

The pose is inhuman—or maybe I should put it more gently, actressy. The drooping posy of blooms is—well—just a trifle too casual-yet-arranged. The thing (I don't know whether it is a piece of furniture or a gate-post or what) against which the damsel so soulfully leans is either a studio "property" or else is an uncommonly ingenious and perverted imitation of one. The left hand, and the hat, and the background, and in fact the *tout-ensemble*, are all visibly inspired not by a desire to be true to life but by a far inferior desire to climb up to, or sink down to, the level of show-case photography.

The thing, mark you, is admirable of its kind. I don't deny this. And I have no quarrel with my friend the Pro., who has to supply a demand. But I do quarrel with the amateur who laboriously goes out of his way to imitate, gratuitously, the products of commercial necessity. People who want professional portraiture should go and pay their money at the studio, not sponge upon the amateur. And the amateur himself who aims at professional-style work ought to be ashamed of such an aim. For his work should be infinitely better than any professional's.

I mean it should be better as sheer truth-to-facts portraiture. The amateur enjoys ten thousand advantages over the professional in this. To begin with, he has a personal acquaintanceship with his sitters, and must recognise their most natural attitudes and expressions, their moods, and their attire. More important still, he does not alarm them into rigidity as the professional is so apt, unintentionally, to do. Moreover, precisely because



Convalescent. *By Mrs. W. Speed Hayman.*



Portrait.

there is no studio, no absurd accessories and screens and faked backgrounds, the whole picture must be far truer to life than the professional's.

I need not labour the argument. Dozens of amateurs' snap-shot portraits come in for these competitions which prove it up to the hilt. As technical photography they may be poor, but as character photography they beat professional work hollow. And if the first object of portraiture is not to represent a true delineation of the sitter, what on earth *is* its object? Technique, though important, is secondary.

"Convalescent," though neither of the delightful little maidens is perhaps absolutely perfect in expression, is, I warrant, a far truer record of their appearance than any retouched-angels-without-wings professional effort which the parents of these children have ever purchased. The setting of the scene is, in reality, part of the portraiture. That iron bedstead, though unbeautiful in itself, is far more in keeping with the small sitters, far more intrinsically a portion of their life story, than the professional's studio-furniture or pasteboard rock-scenery would have been. Amateurishness is, in a sense, written all over this print. Which is just why it is a success. Professionalism is written all over "A Portrait"; which is just why it is a failure.

A picture like "Sonny" seems to come between the two extremes. Many a professional does this sort of work—the vignetting, and even the hugged toy, both savour of professionalism—but on the other hand there is a pleasing air of simplicity about the picture which the professional generally contrives to overlay.

If children are to be "posed" at all for camera portraiture, a simple pose of this kind is undoubtedly the best. Even as much play-acting as we see in "Convalescent" is dangerous; for children, though they play-act deliciously by themselves, ought not to be coerced to do so in front of a camera, for then their play-acting becomes acting without the play. So a frank sitting-still attitude, such as that of "Sonny," is the safest. Safer still, surely, is to snap the mites actually on the move and unconscious of the lens's eye, if not of the photographer's. *En passant* one may be permitted to observe that the boom in reflexes will probably cause



Sonny. *By W. Turner.*

a fine crop of child portraits, more vivid and juvenile than those of the past.

"Forty Winks" is, of course, ultra-amateurish; but I should not be surprised to hear that it is a very precious possession to the owners of the home depicted. That is the fine merit in these unpretentious amateur efforts, so cruelly missed by the highly-finished professional product, whose flavour dies out in a year or two, while that of the crude amateur print endures for a lifetime, and maybe longer.

"Forty Winks" has palpable faults, even absurdities. There is no mortal reason why the figure on the left should have been cleft in twain, nor why we should have been given such an expanse of "sky" and so mean a dole of "foreground." Many of the details of the surroundings, too, might be condemned as distracting from the main interest. But after all they are part of the theme, notwithstanding their irrelevance; and with all its badness this print shines forth as a plain record of a very human and rather touching scene.

Why the head in "Portrait" should be placed so far down in its frame, I cannot divine; anyhow, it was an error of judgment. Trim a good slice off the top and off the right-hand side, and the thing is hugely improved. Even so, it is not overwhelmingly good, though it may be, for aught I know, lifelike. Tie and collar are, however, too sharp; they are perceptibly sharper than the face, and that is clearly a mistake.

On the whole I am afraid that one must label this effort commonplace; and I am inclined to assert that it is commonplace, just in so far as the photographer who made it has had professional standards in his mind's eye, and has made them his goal rather than literal truth.

Any professional who may chance to peruse these lines will probably smile in derision, particularly when he glances at the texture of the skin in this portrait, and thinks how it might have been improved by retouching. But I am not writing for professionals; they know their own business better than I could ever teach it them. And to my amateur readers I would simply say, once again, that while professional mastery of technique is an admirable thing, worthy of imitation, professional mannerisms are not.



Forty Winks. *James A. B. Harley.*



Notes on Photographic Portraiture.



Being extracts from a paper read by Mr. Nelson Jennings before the Norwich and District Camera Club.

THE amateur has a certain degree of contempt for the professional photographer. He condemns his methods and his motives. The first are said to be artificial, and the others mercenary. Of course, there is no excuse for being mercenary; but there is, to some extent, for being artificial. We professional photographers cannot choose our subjects, nor are we always allowed a free hand in the treatment of them. And as some of them lack individuality, or what they possess is undesirable, and has to be firmly suppressed, we may fairly claim some licence.

Helping it to Lie.

It is a fallacy to think that the camera cannot lie. It can, and, in fact, my daily work consists of helping it to do so. It may sound paradoxical, but it is just its deadly accuracy that makes it untruthful, and, like the candid friend, invariably unpleasant. It appears to take more interest in our little failings than in our virtues, and has no hesitation in pointing them out. Its fault is that it sees too much if left to itself; and the art of making a successful portrait is in determining how much it is to see. It is therefore not so much a matter of selection as of suppression, or, rather, like married life, it is a compromise between these two.

To my mind, there is nothing more disappointing than a photograph when compared with that from which it was produced. It never comes up to expectation, and the most promising pictures have a knack of depreciating in passing through the lens. But this must be so. We have to try to remember when composing that we are working in black and white, and put our sense of colour entirely away. If we do not, we are not only disappointed, but may be seriously misled.



Fig. 1.—Taken with a 10in. lens, kept high.



Fig. 1a.—A 10in. lens, at the same distance but from a lower position.

It is a mistake to think that one has to rely upon the retouching of a negative for its artistic merits. The retoucher has no hand in the composition of a picture or its general treatment. If in the first place anything is

fundamentally wrong, no efforts of the retoucher will put it right. At the same time, I do not wish to belittle the importance of this department. You cannot go far in portraiture without it. The lens is too truthful to be fair, and it often sees defects that are not apparent to the eye.

Arrested Expression.

Again, just as arrested action is unnatural in a photograph, so is arrested expression. Apart from imperfections of the complexion, the lines of the face are always accentuated, partly because the light is probably narrowed to model the face, and the naturally warm shadow is recorded as black; but chiefly because the formation of those lines is arrested. The grotesque position of a horse photographed instantaneously in the act of running is well known. This applies to the expression as well, and a line of the face arrested in its formation and movement necessarily appears to be unnatural. The art of the retoucher lies in modifying that line, so that while it is not too much in evidence, the expression that its movement gives is retained.

Retouching forms the chief difficulty to amateurs in photographic portraiture, as some technical skill is required for the most simple treatment. A good many overcome it by getting everything a little indistinct, either by throwing the focus a little out or by printing on rough paper. These



Fig. 2.—Taken with a lens of 8in. focus.

methods apply successfully in the matter of texture of the skin and other little irregularities, but end there.

The amateur has in many ways an advantage over the professional in obtaining a characteristic portrait. In the first place, he is usually upon intimate terms with his sitter, and there is not the constraint that exists between total strangers, and, what is of great importance, he has the home surroundings in which to work. It is the absence of these which often gives to the professional photograph its air of artificiality. By including in the picture articles of furniture or a certain corner of the room that have become associated with the sitter, a more natural impression is obtained. The setting of the model is in unison with the subject, and the victim himself is, moreover, in such circumstances more likely to feel comfortable.

But the greatest advantage the amateur has is one that the poor professional can never enjoy. He has

Only Himself to Please.

One cannot fail to notice that, however a person may appreciate and admire a characteristic study of a friend, it is quite a different thing when it is applied to himself. He wants his own portrait to be nice, and to show him at his best, with no undue prominence given to any particular feature or eccentricity that possibly would identify him to others and make the likeness unmistakable. For himself he wants what is called a pleasing likeness. This is rather a cant phrase, but it describes a popular demand. The kind that is perpetrated depends upon whether the photographer is out to please himself or his sitter.

I can only give one warning. The defects in the sitter may be safely left to the lens, which is quite capable of seeing after them; the photographer must attend to the more amiable characteristics if he wishes them to survive. In such a case the amateur can afford to be merciless, and usually he is, though whether deliberately or from want of skill I am not in a position to say.

The professional photographer is, of course, a trained observer, and the one who makes a financial success of his business is he who is quick to notice a peculiarity of his



No 2a.—Taken with a lens of 16in. focus.

sitter, and carefully to obliterate, or, at any rate, to subdue, it.

There are two methods, amongst others, that painters use. One is to absorb the salient characteristics of the sitter (ignoring the unpleasant ones) and to make a composite picture of the whole. This is the most difficult, and it is a brave man that attempts it, and a clever one that succeeds. Its one merit is that it allows the unsuccessful artist a way of escape, or at least gives him a position he can defend with his back against the wall. He can say to his critics that he has merely depicted what he saw, that the result is the impression which his sitter made upon him; and if they do not agree with it, then it is obvious that he has a more discerning eye than they.

This method to the amateur photographer, especially to a beginner, I would not recommend, with the libel laws as they are. The second method is much more practicable. This is the selection of the most pleasing aspect and expression of the sitter, and a faithful rendering of it. Here the photographer has an actual advantage over the painter, as when he has failed to give satisfaction he can merely refer the enraged original to the camera, adding, what is already common knowledge, the fact of its inability to lie. He need not say, though, that it can strain the truth to such an extent that it becomes unrecognisable.



Nitta. *By G. Peat Millar*

The Means of Setting to Work.

Now for the means of setting to work. The most important thing naturally is the lens, so let us start with that. In selection of this, the length of focus depends very much upon the size of the portrait. As a general rule the further one gets away from the subject the better. There is less distortion. One does not have to be so careful in posing, and the focus has greater depth. It is fatal to be too near to the sitter, except in one or two cases of which I will speak presently. For instance, for a threequarter length figure on a half-plate, I would not suggest a lens of less than ten inches focal length. It would be possible to use one of shorter focus, but extreme care would be wanted. For a half-plate head and shoulders, a lens of sixteen inches focal length is about the limit for comfort. At any rate, one should get no nearer to the sitter than seven or eight feet. Even at this distance it is necessary to keep things as nearly as possible on a plane, partly on account of the limited depth of focus at that distance, but chiefly on account of the distortion and enlargement of the nearer objects.

In threequarter and full length portraits the lens, which is on the line of sight, should be kept low. By keeping it high the figure is dwarfed, and the lines running towards the camera at the base of the picture are lengthened, giving the appearance of a slope. In keeping the lens low, and flattening the perspective of the base, added height and importance are given to the figure.

Where a short focus lens is useful is in the case of abnormal physiognomy, but then only in experienced hands. In those of one who does not know its capabilities, it is a terrible weapon of offence. Its distorting powers can be put to use, with discretion, in bringing back to the normal proportions that are not.

Intellectual but not Handsome.

Take, for example, a gentleman with a bulbous head and weak chin. He may be intellectual, but not handsome. By getting the short focus lens low, the chin would be brought considerably nearer than the forehead, and would, therefore, be larger in comparison, with a beneficial result. Heaven help the poor photographer who in such a case puts his lens high.

Of course, in the example just given, an amateur who wanted a characteristic portrait would wish to give that already prominent forehead yet more prominence. So up would go his lens. This illustrates my assertion that a man is more likely to appreciate the rendering of character in the portraits of his friends than his own.

The size of stop is, of course, regulated by the conditions under which the work is to be done. Just as the object of interest in the picture has the strongest light upon it, so must it have the sharpest definition in comparison with its surroundings. At the same time it is unsightly to have too much difference. While it is worrying to have a superabundance of detail in a picture, it is as bad to have one part critically sharp and the remainder a medley of blurred patches. By getting sharp definition upon the chief object and entirely neglecting the focus of the surroundings, one defeats his own purpose. The eye is attracted to the shapeless mases by the contrast, and the attention is taken up in wondering what they are.

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DARK ROOM DIALOGUES

OLIVER was in the middle of making an enlargement one evening, when his two friends arrived, and the only reply which they got to their knock on the dark room door was a request that they would stay outside until he had finished the exposure, which he was making with his enlarging lantern and acetylene gas.

"Why couldn't we come in before?" enquired Lawson, when at last he got permission to enter. "We should not have let any light in."

"I was not afraid of that," said Oliver, "but there is a certain springiness in the floor up here. Perhaps the builder forgot the joists, or used floor boards instead of them; anyhow, if anyone walks across the floor when I am enlarging or photographing up here, it generally means blurring."

"I should not have thought it would have shaken as badly as all that," said Lawson.

"You see, in enlarging the beam of light is like a lever, and a very slight motion at the lantern end means a good deal of motion on the easel."

"If I were you," said the sunburnt man, "I should rig up an enlarging board to take at one end the drawing board on which you pin your paper, and at the other the lantern. A little shake would not matter much then, as both might shake together."

"I have thought of doing that," said Oliver, "but when I do, I shall go one better. I mean to hang the whole arrangement of easel and lantern from two hooks in the ceiling by means of cords at two ends of the board, and to put shock-absorbers in the cords, so that nothing short of the house blowing down will do much harm."

"What are 'shock-absorbers'?" enquired his friend.

"It's a dodge I saw at a process place the other day. The whole copying arrangement was hung by cords at its two ends, the last few inches of the cords being made of a sort of catapult elastic. The elastic, I was told, takes up all the vibration, and as this is a modern house we are well supplied with vibration."



Rivals. *By Wm. Ed. Cork.*

"By the way," said Oliver, I doubt if my generator is altogether right; though the light is very good, as you see; and the exposures are short enough."

"What makes you think the generator is not right?" was the sunburnt man's enquiry.

"It gets very hot; and I am not sure it ought to do so. I was wondering if it is at all dangerous when it is as bot as that."

"I don't know anything about generators," said the sunburnt man, "but you must get heat when carbide comes into contact with water. I remember, though, reading that you ought to throw a little of the carbide into a bucket of water, and then compare the residue in the bucket with the residue in the generator; and that if the generator residue is much darker in colour than the residue in the bucket, it is a sign that the temperature in the generator was allowed to get too high."

"Thanks for the tip," said Oliver. "I'll try it the first chance I get." He turned down the light as he spoke, and got ready to develop the enlargement.

"What developer do you use?" enquired Lawson.

"Amidol," was the reply. "I used to use metol-hydrokinone, but I always fancied it gave me more of a blue-black than amidol does, and I have stuck to the latter ever since I tried it."

"Any particular for mula?"

"That's it, on the bottle. I copied it off one of the makers' instructions—I forget which—but I use it for all, and it suits all."

"What's this mark on the side of it for?" said Lawson, pointing to a black mark near the top of the bottle which held Oliver's developing solution.

"Oh, that's just a measure. I always use eight ounces of developer for a

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SUMMER SUNSHINE. BY FREDERICK EVANS.

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fifteen-twelve enlargement; and I always mix it up as I want it, as amidol does not keep very well in solution. I put half an ounce of sulphite crystals into the bottle, fill it up to the mark with water, and give it a shake every now and then. If I do that when I start to get ready to make an enlargement, it has all dissolved by the time I am ready for the developer. Then I just add to it forty minims of a ten per cent. solution of potassium bromide, and twenty grains of amidol, and the developer is ready for use." Oliver did so as he described it, and, giving the bottle a shake, poured its contents into the graduated measure that stood handy, and, taking the enlargement, put it in a dish and proceeded to flood it with water.

"What's that for?" was Lawson's prompt question. "I thought it was bad to wet a plate before developing it, and I suppose bromide paper is the same; is it not?"

"Not quite," said Oliver. "The wetting is not an absolute necessity, but I always do it, as it makes the paper limp, so that it lies quite flat, and the developer covers it at once."

"Are you not afraid of air-bells?"

"No. None seem to form on the face of the paper. They sometimes show on the back, but I prevent them from doing any harm by turning the paper over while it is still in the dish, and passing a flat squeegee over the back."

While he had been talking, Oliver had started developing, and already the picture was beginning to appear. The three friends watched it in silence for some little time, until Lawson observed, "It looks about done now."

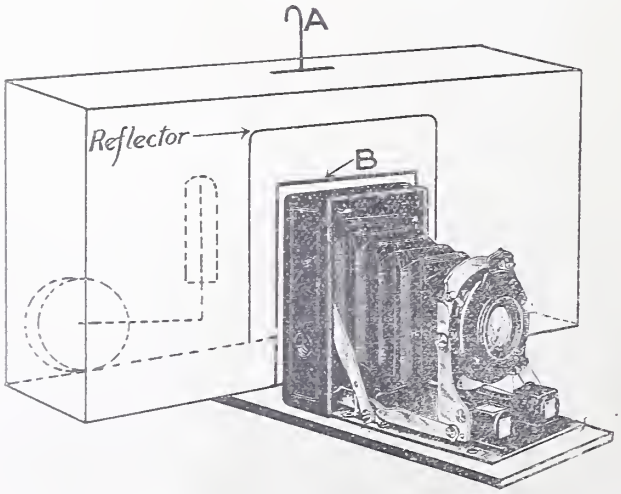
"Aren't you going to take it out, then?" he added, as Oliver showed no immediate intention of doing so.

"There's no hurry," he explained. "If the exposure was right—and I think it was—the action of the developer will seem to stop at the right moment, as you see it has done, and an extra half-minute or so will do no harm." As he said this, he poured the developer off, and gave the enlargement a good washing under the tap both back and front, before proceeding to fix it. But an account of the fixing, and the conversation to which Lawson's persistent enquiries gave rise, must be deferred to another occasion.

The Use of an Artificial-light Copying Board for Enlarging.

HITHERTO the use of my artificial light copying board had been restricted to copying and to the rapid drying of negatives, but recently it has served another purpose. I have never actually possessed an enlarger, as I had had one I could use when required; but the copying board, together with the camera, were now pressed into service as an enlarger.

For this purpose a box without a lid was chosen, which would fit over the whole of the copying board, and a hook was fitted to the top of it to enable it to be hung upon the board for use. A piece of wood was then screwed to the base of the box, so that it projected far enough to serve as a table for the camera, as shown, a hole being made in it for the insertion of the tripod screw, to hold the camera in its place against the aperture B in the front of the box. This aperture has to be a little smaller than the back of the camera. On the copying board, opposite the aperture, a reflector of some kind, but not a mirror, has to be fixed. In my own case I have a piece of tin, slightly larger than the front aperture, this tin being coated from time to time with white enamel.



To complete this part of the apparatus, the roof of the box is lined with asbestos or sheet tin, in the centre of which a hole must be cut, with a corresponding hole in the woodwork for ventilation. A sheet of tin is then bent to the shape of the outlet, and, when fitted with a piece at the top, serves as a light-tight cowl. A cloth over all except the cowl prevents any light from escaping except through the front of the box.

To use it, the burners are adjusted to illuminate the enamelled plate evenly, when a flood of white light is at our service. All that is then required is a negative carrier, which is substituted for the reversing back of the camera, a small table and a box on it, which, with the help of a few hooks or pieces of wood, can be made to serve as an easel for holding the bromide paper.

—F. VISICK.

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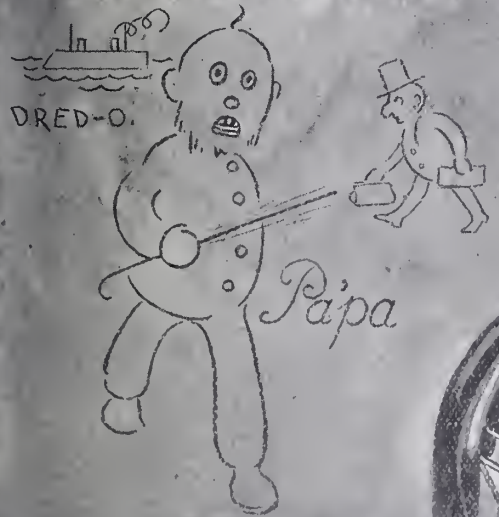
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MAKING THE BEST OF IT

A Series of Suggestions for Making Good Prints from Poor Negatives

By Chas. M. Lewis. (Special to "Photography & Focus.")

Surface Stains, Metallic Markings.

OLD plates or a stale pyro developer with insufficient sulphite sometimes give a negative which is defaced by metallic looking markings on its surface. In the case of old plates, they are generally near the edges. A not unusual form of metallic marking is a kind of splash in the middle of the negative, showing where the developer was poured on. This is very likely to appear if the developer has been left standing for some time after mixing, and before applying it to the plate, particularly if the water is highly aerated.

Such marks are usually on the surface, and in that case are easily removed. But sometimes the scum not only adheres to the top of the film, but appears to have checked the development underneath it, and then the defect will show in the print, and there is no remedy. The first thing to do is to take a tuft of cotton-wool, moisten it in methylated spirit, squeeze it almost dry, and give the surface of the dry negative a gentle polishing with it. This will be found to remove a great deal, if not all, of the stain, and the polishing may be continued as long as it seems beneficial. A good deal of pressure may be applied to the negative with the wool, without any fear of hurting it. The wool must be almost dry, as if it is more than moist it seems to have no "tooth," and to leave the stains untouched. Another way of removing these stains is by placing the negative, after it comes out of the hypo and before washing, in a weak ferricyanide and hypo reducer, which may be made by adding to the ordinary fixing bath a little of a saturated solution of potassium ferricyanide. Only just enough to tint the solution yellow should be added, and the plate must be watched carefully while in this bath, and removed and washed at once, as soon as the stains have gone, or before then if it is seen that the strength of the negative is being reduced. If the markings are seen on the surface of the plate, but do not show in the print, as is sometimes the case, it is better not to remove them, rather than to run any risk of damaging the negative by applying a reducer.



On Guard. By Percy Milan.

Awarded a Certificate in the Beginners' Competition, just closed.

Developer Stains.

THE use of insufficient sulphite in the developer causes the negative to be stained yellow or brown. This can be prevented to some extent by using an acid hypo bath for fixing, or by giving the negative, after fixing and washing, a clearing bath consisting of an ounce of alum and half an ounce of citric acid dissolved in a pint of water. It may be left in this for anything up to half an hour, and then be washed and dried.

The removal of developer stain is not easy, nor is it always necessary nor even advantageous. The stain is very rarely uniform over the whole plate, but is more intense in the denser parts than in those which are more transparent, so that it acts as an intensifier, and causes the negative to give a pluckier result than it would do were the stain absent. Consequently on removing the stain it may be found that the negative is left with insufficient contrast. One of the best solutions for getting rid of developer stain is one of sodium hypochlorite (sometimes called "Eau de Javelle" or "Labarraque's Solution"). It is made by dissolving an ounce of sodium carbonate crystals in five ounces of water, and then adding half an ounce of "chloride of lime" (bleaching powder). The mixture is thoroughly shaken up and filtered through a tuft of cotton-wool, and another five ounces of water added to the residue, and this also passed through the filter. The clear liquid which results may be used as it is, or with further dilution if this is preferred. It keeps fairly well, and is a most effective remover of developer stain. The negative must be well washed after the bath of hypochlorite, and as this softens the gelatine, great care should be taken not to touch the surface of the film while in the bath, or until it is dry.

Other clearing baths are given in textbooks, but those just mentioned will do all that is required as far as developer stains are concerned. With these, as with so many other defects in photography, however, prevention is better than cure; and it is far easier to avoid the stains than to remove them when once they have appeared. If there is a sufficiency of sulphite in the developer, say twenty grains of crystallised sodium sulphite (or ten grains of the anhydrous) to each ounce of the developer as applied to the plate, there will be no fear of staining. But sulphite gradually deteriorates while in solution, and it should not have been dissolved more than two or three weeks to be fully effective.

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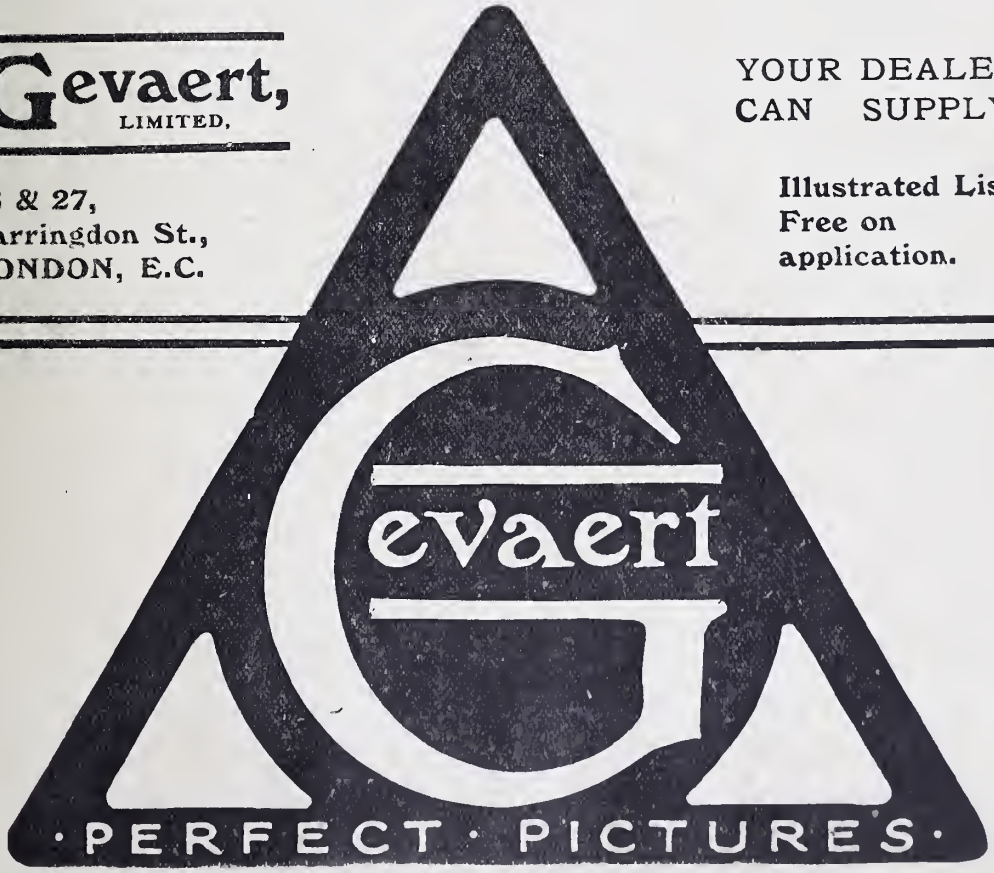
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"The time has come, the Walrus said, to talk of many things."

IN some quarters there seems to be an extraordinary idea of the extent of my power and ability, and this leads to the preferment of strange requests. My opinion is asked on all sorts of questions of which I am profoundly ignorant, and I cheerfully express that opinion with the confidence that only ignorance can justify. Used as I am to this sort of thing I must admit a certain amount of surprise at the receipt of a type-written postcard to this effect: "Vandalism is rife. Please do what you can to use your influence to preserve the Whitgift Hospital, Croydon." More in sorrow than in anger I ask, who am I that I should do this thing? My reference books certainly give some information as to preservatives for pyro and other things, but I can find nothing that appears to be suitable for hospitals, Whitgift or otherwise, at Croydon or elsewhere.

* * *

My strongest impression of Croydon is of an upper chamber, difficult to locate, and none too easy of access. The principal contents of that room are a forty horse-power atmosphere of tobacco smoke, a lantern and screen, and an audience of genial photographers who cheerfully make rude remarks to the most capable and distinguished of lecturers. A verbatim report of a lecture before this nicotine saturated society is always plentifully punctuated by those remarks usually placed in brackets, attributed to a voice, and followed by loud laughter. I have before me a letter requesting me to revisit this upper chamber, but after these remarks I dare not. The stairs are too dark.

* * *

On second thoughts I have heard or read that the said Whitgift Hospital has not only served a useful and beneficent purpose, but that it is a picturesque and interesting building. This of itself is sufficient to mark it out for ruthless destruction at the hands of the Vandals. If, as is probable, it is absolutely the only building in Croydon worthy of preservation, it is certainly doomed. All the glorious old places that are the delight of the artist and the photographer are being wiped off the earth. For my part I love many things just because they are old (as witness my clothes), and if it lay in my power the Vandals who dare to place their dirty hands on old churches, almshouses, castles, and bridges, would have a very rough time of it. In less than no time they would be laid by the heels, awaiting the sensation of a short sharp shock from a cheap and chippy chopper on a big black block. Very likely the smoke-dried members of the Croydon Camera Club depend on photographs of the Whitgift Hospital for the bulk of their exhibition pictures, so I suggest that they undertake the preservation of the old hospital themselves.

* * *

This question of the rapid disappearance of picturesque relics of the past is likely to prove a serious one to photographers. At the same time, I recognise that it is not an unmixed evil, because I think that photography as an art would benefit by the conversion of Haddon Hall into a cotton mill, and Conway Castle into an aeroplane shed. There is a certain class of photographer, and a pretty large one at that, who will never soar into the higher realms of art as long as one stone is left upon another of Tintern Abbey, the Miners' Bridge at Bettws, and all the rest of that class. (Please do not write to point out triumphantly that as the Miners' Bridge is a wooden one there are no stones one on the other. I was thinking of the Devil's Bridge, but it is too much trouble to alter the word.) To resume. There is an irresistible charm about a mellow old building that has been weathered into the perfection of harmonious beauty, and when I go to visit such a one and find it "restored," or replaced by a modern "improvement," my language would disgrace a Limehouse Reach bargee, and I would cheerfully convert the perpetrators of the improvement into cheap German sausage, or use them as fertiliser for a cabbage field.

* * *

If we obliterate a Vandal from the face of the earth we can, alas, replace him easily and instantly; but when we wipe out a Tudor mansion that has been a photographic sheet anchor to pot hunters for long years we cannot replace it so readily. It takes time. We might put up another building like the original, get our cameras ready, and wait for the hand of time to do its work. But even if we had the patience to wait four or five centuries we should not have the chance. That is a very dead certainty. So it seems to me that photographers in self-defence will have to look around for some new system of architecture which will permit of buildings becoming ancient while they wait. I do not mean the same sort of thing as is done already in the case of the desirable villa residence that comes unstuck in seventeen places before the first occupier has got his carpets laid; I mean to suggest a building that shall run through all the stages up to ivy-clad ruin and haunted decay in six months instead of six centuries. It could surely be done. It is possible in a few hours to convert raw potato spirit into fine old whiskey, new milk into ripe Stilton, and green deal planks into well-seasoned mahogany furniture; so it should be easy to put up a building round which photographers would be clustering like bees a fortnight after its erection, making records of the fine old ruins.

* * *

Once such a system was well established it would be quite feasible for some of the wealthier photographic societies to have a set of famous buildings—castles, abbeys, Shakespeare's birthplaces, and such—erected in some accessible spot. If they were put up in the winter they would be ripe for the summer outings, and would have vanished into dusty annihilation by the following winter, leaving the site clear for a brand new set. In this way each season as it came round could be devoted to photographing the famous ruins and ancient relics of a different country. One summer the members would be exposing their plates on the ruins of Thebes, while the following year the spot would have blossomed forth into Cheapside in the days of Whittington.

* * *

So I hope the Croydon photographers will take heart of grace. If I can do nothing to preserve the Whitgift Hospital from the despoiling Vandal I have at least indicated a method by which they can snap their fingers at him in defiant derision. While he is demolishing the building they can have another one rapidly maturing on the nearest vacant plot.

* * *

I fear I am going mad. THE WALRUS.

SUBSCRIPTIONS.

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Large Prints from Small Negatives. II.

Bromide enlargements and their modifications: successful enlargements from over-dense negatives: the sulphide toning process and the cause of poor colours: ozobrome.

IN an earlier article (*Photography and Focus*, September 7th, page 185) we considered the comparative advantages of the two main methods of making large prints from small negatives, and gave some suggestions for the benefit of those who elected to make enlarged negatives for subsequent printing by contact. This week we take up the subject where we then left it, and deal with the alternative method—far the more popular—of making the enlargement direct upon bromide paper. Here there is none of that loss of quality already referred to, even when the bromide enlargement is converted into a pigment picture by the ozobrome process. But, on the other hand, the printing methods possible are limited.

The photographer who does not feel very confident of his manipulative skill will do well to use this method, as it is certainly simpler and easier to get a good large print by its means than by the enlarged negative method; since in its simplest form—that of the plain bromide enlargement—there is only the exposure and development of the enlargement to undertake, and these are both more or less familiar processes to him. Moreover, a good bromide enlargement is a photograph which will hold its own beside a print made by any other process whatever, while the quantity of brands and surfaces of bromide paper on the market give almost unlimited scope for choice.

Most Suitable Grades of Bromide Paper.

The glossy kind of bromide paper is not suitable as a rule for exhibition work, but the matt and in very large sizes the Crayon or very rough grades do very well. If the enlargement is not to be toned, the paper selected should be white, and not tinted, but for the sulphide toning process a cream or toned paper is more suitable. Plain black prints on the toned papers do not look very well as a rule. There are a number of strongly tinted bromide papers now on the market (the Ilford Co. has a fine selection of these), and such papers for some subjects are very effective; but they do not suit all, and care must be taken not to employ them for pictures where there is any chance that the deep tone of the paper will make the print look as if its lights were simply degraded.

If the picture be one which contains a great deal of fine detail which we wish to preserve, the enlargement may be made on platino-matt bromide paper. An enlargement with a white margin often looks very well. It can be made quite simply. All that has to be done is to cut a mask of opaque paper, just as is used in the case of contact printing, and to place this in the correct position over the bromide paper on the easel or in the enlarger. It should be pressed on to the surface of the bromide paper with a clean sheet of glass. Another way of getting a similar result is to mask the negative.

The Sulphide Toning Process.

The sulphide toning process confers a great power upon the bromide enlarger, as it enables him to turn a black print into one of a very rich sepia quite easily and without the slightest loss of quality. Although it "enables" him to do this, it by no means follows that he will do so, and the very poor, yellowish brown, washed out toned bromides often seen show that the process is not always successfully worked.

The cause of a great many of these failures seems to be in the production of a poor black print in the

MEMORANDA *for the week.*

When any free offer is made by a manufacturer or dealer, which it would profit our readers to note, it will be announced here.

first instance. The toning process is looked upon as something in the nature of a "corpse reviver," which will remedy any weakness or bad colour in the untoned print and bring about a rich and successful result. This is just what it will not do, and unless the print before toning is not only a good black colour, but also has plenty of depth, it is better not to tone it at all. With such a print, as a rule, the best thing to do is to bleach it exactly as if it were to be toned, to wash it well, and then to develop it again with a freshly mixed amidol or metol developer, such as was used for it at first. This will often improve its colour, but it is not advisable, even if this has done so, to rebleach and try to tone it.

Cause for Bad Colours and the Remedy.

But at times, even when the original enlargement is of a good tone and has plenty of vigour, the toning process only converts it into a bilious-looking weak print. The causes of this are not very well understood, but there seems to be no doubt that one of them is the use of a stale and partially decomposed sulphide solution. A solution of sodium sulphide, or the liquid which collects at the bottom of a badly corked bottle of sulphide crystals, gradually undergoes alteration, and one of the results of the change is the formation of that good servant but bad master of the photographer, hypo. When a solution containing both sulphide and hypo is applied to the print, the sulphide turns some of the image into silver sulphide, it is true, but the hypo dissolves out some of it, and so the picture is weakened.

A very similar result follows if the enlargement be not properly washed after fixing and before putting it into the bleaching solution. In such a case hypo is carried into the bleaching solution, and as a result we have a ferricyanide-hypo reducing solution formed, which soon eats out some of the finer gradations of the image.

An Alternative Bleaching Method.

The original method of bleaching before toning, as described in *Photography* by Mr. Blake Smith, was to place the print in a strong solution of iodine in potassium iodide solution, which turns print and paper a blue-black all over, on which a faint cream coloured negative image can be seen. It is then placed without washing in a five per cent. solution of sodium sulphite until the whole has been completely bleached, when it is transferred again without washing to the sulphide solution. Although theory tells us that this method must give an image identical in composition with that obtained with the ordinary ferricyanide-bromide bleaching bath, it certainly seems to yield a rich print with greater certainty.

The sulphide toned bromide print is justly popular for exhibition work, but its success depends very greatly upon the negative being quite suitable for enlarging. The commonest defect in exhibitions and competitions is the use of a negative for enlarging which is just too strong for the purpose. The consequence is that in the finished enlargement the very highest lights are blank and without detail.

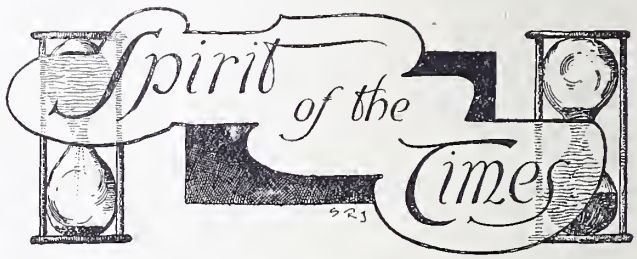
Soft Prints from Hard Negatives.

A hard negative may be made to yield softer enlargements in several ways. It may be enlarged with as powerful a light as possible. Or a very slight fogging may be given to the enlargement. A good way of doing this when using a lantern is to give three-fourths of the exposure in the usual way, and then to give the remaining fourth after breathing gently on the front of the lens. This is a very effective way. The use of bolting silk is also a remedy for a hard negative, allowing us to expose long enough to get out the detail in the high lights without the deepest shadows getting so intense a black as they would were there no bolting silk employed. If the negative is not under-exposed, but is merely developed too far, it may be reduced slightly with ammonium persulphate, or may be bleached in the sulphide toning bleacher, washed, and dried. In this bleached condition it will give a much softer enlargement.

About Ozobrome.

The ozobrome process is a fine one for exhibition work, as it will turn a good bromide enlargement into a pigment print of any desired colour. It is not difficult, but may be regarded as one stage beyond the toned bromide. There is much in connection with ozobrome which is of extreme interest, and cannot be dealt with in a few lines at the end of an article, so we will defer that topic to some other occasion.

R. C. B.



Our Competitions.

We wish to draw attention to a slight alteration in the subjects set in the Special Subject Competitions. An "Indoor Portrait" was announced last month as the subject for the competition closing November 30th, but this will be postponed until December 31st, the November competition being for a still life subject suitable for a Christmas or New Year Card. The Lantern Slide Competition is included in the announcements this week, and in our next issue we shall have an announcement of great interest to

COLONIAL AND FOREIGN READERS.

Entries for the monthly competitions, we would remind competitors, must all be in by Thursday in next week.

The Passe Partout.

The easy way of framing small prints, which Mr. Tayler describes on page 235 this week, is one which can not only be easy but most effective. It comes, in simplicity, about halfway between the ordinary frame and the *passe partout*. This last has become very popular during the last few years, and in the hands of anyone of taste is, perhaps, the best way in which a print can be protected and shown; the heavy wooden frame only being necessary when a number of photographs are to be hung close together at an exhibition,

and some powerful means of isolating each print is a necessity. Materials for making *passe partouts* are now on the market, but are not required for the best results. For these the mounted print is simply placed face downwards on the sheet of glass, and the edges are bound either with the same paper as was used for the outside mount, or with something similar in harmony with it. Thus the binding strips of the *passe partout* are made part of the tone scheme of the mount, and the shadow they throw on the mount beneath the glass acts as a line near the edge of the print, and helps towards the effect.

Artificial Light and Fireflies.

A very interesting series of "Cantor Lectures" has recently been delivered at the Royal Society of Arts by Mr. Leon Gaster, having as subject modern methods of artificial illumination. As reported in the Society's journal, they appeal to photographers from the way in which photography has been used to illustrate them, numerous photographs of interiors, shop windows, and streets illuminated in various ways being given. In the last lecture Mr. Gaster dealt with the possibilities of artificial lighting in the future. He showed that in all forms of illumination there is immense waste of energy as far as lighting is concerned. Only a mere fraction of the radiation is in the form of visible light; in fact, with a great many forms of artificial light it is less than one per cent. Even in the case of the sun the majority of its radiated energy is not light. There is at least one extraordinary exception to this. Insects have completely solved the problem which is the stumbling block of the lighting engineer, and in their own production of light avoid all waste of energy. The firefly, for example, emits a bright light, but all its radiation is light. Waste is completely avoided; and when, if ever, gas or electricity can be utilised as effectively by man as its own phosphorescence is by the firefly, our bills for gas or current might easily be reduced to threepence or fourpence where they are now fifteen shillings or a pound.

Travellers at high altitudes find the light affect their eyesight very considerably. Snow blindness and a tanning of the skin are well known to mountaineers, and are attributed to the fact that the atmosphere is not sufficiently deep at those heights to absorb most of the ultra-violet rays in sunlight, and these ultra-violet rays are harmful. A new glass known as "Euphos" was shown by Mr. Gaster at his last lecture, which it was said would absorb most of the ultra-violet light without absorbing any great proportion of the visible light. The effect of this glass was shown to be that it cut off the ultra-violet light sharply, but allowed the visible light to pass, even up to the violet, with comparative ease. Most of the newer forms of illumination show an appreciable proportion of ultra-violet, so that it is possible that the "Euphos" glass, which is the invention of Drs. Schanz and Stockhausen, may play an important part in the future. Owing to the photographic efficiency of the ultra-violet, a room glazed with "Euphos" might be brilliantly lit, yet necessitate exposures far longer than usual. It will be of interest to note developments in this direction.

Plate Speed Numbers.

A writer in "The Times" last week makes the suggestion that from the amateur photographer's point of view it would be well if plate speed numbers could be put on much the same basis as the F numbers of lenses, each increasing figure implying that the exposure necessary could be halved. Thus a series of plates now expressed as H. and D. 50, H. and D. 100, H. and D. 200, and H. and D. 400, might be known as of a speed of 1, 2, 3, and 4. This would at least do away with high numbers in plate speeds, and the misconceptions to which they give rise.

Special Autumn and Lantern Issue—October 5th.

A FORTNIGHT to-day will be published our special issue, which will contain a great many articles of exceptional interest, extra pages with extra illustrations printed in colour on "art" paper. Below we give a list of some of the contents; but a further announcement will be made next week.

COLLODION EMULSION SLIDES. BY R. CHILD BAYLEY.

An almost forgotten process by which many of the finest slides ever made were produced. Full working details are given for those who like to try it.

LANTERN SLIDES WITH WARM TONES. BY REV. H. O. FENTON.

One of the most successful competitors in the "Photography and Focus" slide competitions describes how he gets warm tones by means of development only.

LANTERN SLIDES BY REDUCTION. BY E. HUGHES.

The writer illustrates his own apparatus for slide making, and gives a full account of its use. He also illustrates an extraordinarily simple and effective way of illuminating small negatives in slide making.

ELEMENTARY SLIDE MAKING. BY THOS. KINGHAM.

A beginner's article by an expert, simple, lucid, but complete.

SLIDE MAKING WITH AN ENLARGING LANTERN. BY E. H. IMMINGHAM.

Describes how an ordinary enlarging lantern with incandescent gas can best be utilised for the purpose.

MOUNTING LANTERN SLIDES. BY T. ORTON MURRAY.

Dealing with the best way of masking a slide to suit the subject, and how to mount and bind it to stand wear and rough usage.

HOW I MADE A FIXED FOCUS LANTERN SLIDE CAMERA. BY "SCOT."

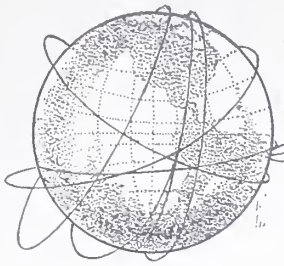
An illustrated article sufficiently described by its title.

THE GOLD TONING OF LANTERN SLIDES. BY W. WORKMAN.

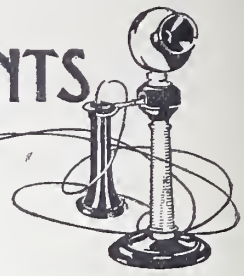
Giving formulæ and methods largely used by professional slide makers.

The leading article will deal with judging density in lantern slides, and the issue as a whole will form a complete treatise on slide making for the beginner and the expert.

PRICE ONE PENNY. **ORDER EARLY.**



REPLIES TO CORRESPONDENTS



REGULATIONS.—(1) Envelopes must he marked "Query," and the "Enquiry Coupon" found elsewhere must he enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers ahroad, only *one* question on *one* subject is allowed in each letter. If more are asked, only one will he selected for reply. (4) Prints may he sent in for criticism, hut a separate coupon must be sent with each print, and they must be accompanied hy a stamped addressed envelope (not loose stamps) for their return, or they will not he criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will he dealt with hy post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must he enclosed.

MRS. CLARK (Birmingham).—The Wellington paper is ahout twenty-five per cent. faster.

MISS E. SCOTT ANNERSON (West Ealing).—The exhihition of the Royal Photographic Society opens on the 22nd inst.

A. BLANN (Southport).—In reply to your card, we are sorry to say we cannot answer enquiries by post except as above.

W. H. MILLER (Elstree).—See answer to J. G. Williams. The kind of photograph can best he jndged from the winning prints we publish.

W. E. CARSLEY (Cambridge).—The honorary secretary of the Camhridge Society is Mr. T. J. Sowden, Sunny Side, Guest Rd., Cambridge.

TYPE (Malton).—You can get it through your dealer, or direct from W. Butcher and Sons, Camera House, Farringdon Avenue, London, E.C.

A. BLAND (Birkdale).—The lens can be used, but it may be necessary to alter the relative positions of light, condenser, and lens; whether this is so or not must be found hy trial.

BOOKPLATE (Hampstead Green).—A bookplate is used to mark the ownership of a hook, and to that end is fastened inside the front cover. We can only reply to specific questions in this column, and cannot give "suggestions."

G. STANFORN (Bradford).—The after processes are simply fixing in plain hypo and washing in water. Printing has to he fairly deep, and any ordinary combined toning and fixing hath can he used, if the colour given hy plain fixiug be satisfactory.

SEWEL (Lewes).—The print was not sent in to a Beginners', hut to a Special Subject competition; and the Causerie, although chiefly based on the former, is occasionally supplemented from the latter when these help to make the lesson plainer. Thanks for your letter.

T.G. (Nantgarw).—The solutions named are for toning prints, not for intensifying negatives. Tbeir application right intensify a little, but it would he better not to use them, as nothing could be done with the negative afterwards, should it not he exactly what is wanted.

A.B. (Spalding).—You will not find a hetter or quicker way than the ferrotype, and if you will take our advice you will find out the cause of the sticking and remove it. We presume you give the cards a formaline bath hefore squeegeeing. A burnisher will not give so good a glaze. See reply to "Dot."

IRIS (Taunton).—The rule is to square the F numbers, and the results are relative exposures. The square of 4.5 is 20¼, and the square of 8 is 64, so that a subject which requires 64 seconds with f/8 will require 20¼ seconds with f/4.5. For all practical purposes f/4.5 requires one-third the exposure required hy f/8.

RECTOR (Bishop's Castle).—The speed question is given on page 434, second column, which you appear to have overlooked. The article refers to plates of ahout the speed you are using. The index is sent hy our publishers without charge in return for a stamped addressed wrapper, hut they do not supply reading cases.

ORPHA (Calcutta).—There can be no douht that you are over-exposing, if the plates are in good condition, a point on which we cannot speak. The negatives, when placed film downwards on a sheet of white paper, should be almost clear glass along the edges, where they have had no exposure, and if yours pass this test they are in good condition.

C.S.H. (Nottingham).—If a sheet of waxed paper is used for smoothing down, there will he no trouhle from prints sticking to it. But it should not occur, if the mountant is applied carefully. The best plan is to have a little pile of cut pieces of newspaper, and to put the print on that to paste it, using a fresh piece for each print.

ANASTIOMAT (Chester).—The Zeiss Douhle Protar. It conld be used in all prohahility, but it would he necessary to try it to make quite sure that the extension was enough for the half lens. The makers would tell you. The qualities you name in the first section are hardly peculiar to the "finest" lenses, but can he got with all that are fit to use at all, and depend upon the subject, the exposure, and the skill of the photographer generally.

C. CARY (Ilfracombe).—No. 2 is first. Nos. 1 and 3 are about equal.

A.H. (Colinton).—Marion and Co., 23, Soho Square, London, W., issue a very varied selection.

J. G. WILLIAMS (Portmadoc).—Particulars of our competitions are puhlished at least once every month. They will be found on page 242 this week.

SPEENS (South Woodford).—The time exposure valve will not interfere in any way with the shutter, with which it can be used. The dial must be set to "hulh."

KODAK (Laugley Park).—We believe they are f/11, f/16, and f/22, hut a line to the makers would give you the information on the best authority.

DOT (Whitchurch).—Marion and Co., 23, Soho Square, W., will supply a burnisher suitahle for postcard work, hut no hurnisher gives as high a gloss as can he got with a minimum of trouble with ferrotype. See reply to A.B. (Spalding).

W. J. BRYANT (Barry).—We do not know what particular make of card it is, but the metol-hydrokinone formula given with any standard brand of gaslight or bromide paper will give that result, when the negatives are suitable and the exposure correct.

EMASTO (Lingfield). — The only reference we have is to an article puhlished in July, 1907, in which we pointed out that the result of a long series of experiments led us to the conclusion that the process was hardly a practical one. The issue is out of print.

SEA URCHIN (Croydon).—They are hoth ohsolete patterns, having heen supplanted hy many designs which give hetter definition at larger apertures. They can he fitted to any camera which possesses the required extension, and can he used for photography.

TICKA (Plymouth).—We see nothing to make the construction of a focal-plane shutter impossihle; hut can hardly give you fuller details of the manufacturers' intentions than they have done. In writing to them you went to the fountain head. We know no more than you do ahout it.

T.S. (Denhigh).—The white line is due to holding the knife improperly while cutting. It must he either vertical, or better still, sloping a little inwards, so as to undercut the print, and so prevent the edge from showing. In this particular case we do not see that it is objectionahle.

R.F. (Leamington).—The only one we could suggest would he the Kodak. The ordinary forms of finder will not do what you require; hut a special pattern is made hy Messrs. Sinclair, 54, Haymarket, London, S.W., that can he adjusted to show the alteration effected hy the rising front.

COUP DE MAIN (Carlisle).—The description of the exposure would lead us to suppose that the plate was properly exposed, hut the print has all the appearance of one from a very much under-exposed negative. As there is much depth of focus, we suspect that the lens was stopped down a great deal more than f/8. which would account for it.

T.W. (Chelsea).—We have returned the print. It may he due to light leakage at the shutter, when the camera is closed up, or else is a flare spot. If you extend the camera, wind off a fresh length of film, or else put in a plate, and make an exposure at once, and then get the mark it is a flare spot, and the lens should go hack to the maker forthwith.

AJAJA (Streatham).—The quantity varies with the make of paper. The proportion you name would generally he sufficient, hut if the whites were discoloured, would have to be increased. No formula is needed for the concentrated fixing bath. All that need he done is to reduce the quantity of water until the hypo is just dissolved. It is not advisahle to keep it much stronger than four ounces to the pint.

S. JEPSON (Spalding).—The hest plan would he to have an opening at least a foot square, at the floor level and one at the ceiling, providing each with a light trap, which can easily he constructed of wood hy a local carpenter. There is no need of anything more, the fresh air will enter naturally as the hot air makes its way out above. It would he hetter we think to open it to the outside rather than into the studio.

NOVICE (St. Helens).—It is made by Houghtons, Ltd.

LENS (South Shields).—We have no recollection of the advertisement.

REV. C. F. HARBY (Clifton).—It can be ohtained from Messrs. H. Parr and Sons, Redditch.

T.G (Birmingham).—The name is that of the seller; the actual maker is unknown to us.

D. C. MACLACHLAN (Edinburgh).—We do not know of any firm making a daylight developing machine for so small a film as the Ticka.

H.B. (Willesden Green).—There is nothing for it but to measure the speeds. Messrs. R. and J. Beck, 68, Cornhill, London, E.C., will do this for a small fee, and this is what we should advise you to have done.

E. FAWAH (Isle of Wight).—The nearest we know to your requirements are the Kodoid plates; and these, we presume, from your enquiry, are not what you want. So far as we know nothing answering to your description is made.

P.B. (Holkham) asks: "Will undeveloped exposed plates keep for three or four months without affecting the photographs?" *A.*—Certainly, if they are kept away from gas fumes and other impure air. They will then keep for years.

A. S. ORLEBAR (Sandy).—The reference is to the average high speed (not highest speed) plate on the market, say about 200 H. and D. If you can refer to the article on page 433, May 25th, 1909, by the same writer, you will see what he means.

F.J.G. (Bucknall) writes that huttons and frames for the Chicago Ferrotype Co.'s "Wonder" camera are to he ohtained from the company's European hranch, Pearl Assurance Buildings, No. 12, St. John's Lane, Liverpool.

PERDOCTUS (Blackhurn).—A 14in. focus lens used at f/8 requires exactly the same exposure as an 8in. lens used at f/8. When half the lens is used the exposure has to be multiplied hy 4 hecause the F numhers of the stops are donhled, f/8 hecoming f/16, and so on.

F. G. GLENDARG (Bury).—The Soho Reflex seems an excellent selection. A camera for the tropics should he specially ordered as a "tropical model." In view of possihle difficulties in getting the smaller plates, quarter-plate is preferahle in our opinion for use abroad.

F.P.S. (Chatham).—The most likely cure would he to treat the plates in "Eau de Javelle," as described on page 223 last week, and if that is no cure to wash the negative thoroughly and apply citric acid and alum solution mentioned just above. We have sent the negative back.

A BIT DISAPPOINTED (Stroud Green).—There is nothing that can he done that will make very much difference. The best plan would he to get a telephoto Planiscope and attach that to the existing lens, hut photographs of mountains are always more or less unsatisfactory, and no telephoto or other lens really gets over the difficulty.

C. G. TRIPP (Boxmoor). — The apparatus has never heen suhmitted to us for trial, though we asked for it when it first came out, and we are therefore not in a position to say if it works satisfactorily or otherwise. The enlarger is a very convenient way of getting what you want, and there is little to choose hetween the two makes you name. You cannot get wrong if you get either.

NIGERIAN (Leuchars).—It is very doubtful if any ordinary apparatus would stand the climate long, and you would have to get plates and materials sent out from England. Your hest plan would be to get into touch with some firm specialising in such work. Messrs. J. A. Sinclair and Co., 54, Haymarket, S.W., do so, and would advise you fully as to what to take and how to get supplies sent out.

WORRIEN (St. Leonards).—We are as puzzled as you are to account for the marks in the sky, and cannot think that they are due in any way to the tank; yet if these were developed film to film it certainly points to some action of the kind. Is there any rust in the neighhourhood of the marks? If the two films were packed like this some specks of impurity on the packing paper might be the cause. We have not kept the negatives, as you say they are of no value.



STOLEN CAMERAS. A porter pleaded guilty to stealing two cameras, value £6, from his employers, Messrs. Marion and Co., Soho Square, and was sentenced by Mr. Mead to four months' imprisonment in the second division.

MESSRS. A. E. STALEY AND CO., of 19, Thavies Inn, London, E.C., have been appointed sole importing agents for Great Britain and the Colonies for Messrs. the Nettel Camera Co., makers of the Kibitz, Multo-Nettel, Self-capping Nettel, Stereax, and Intimo cameras.

INSTRUCTION IN PHOTOGRAPHY will be given at the L.C.C. Science and Art Centres at Hackford Road, Brixton, on Mondays, and at Brockley Road, S.E., on Thursdays, commencing the 27th inst. A detailed syllabus can be obtained on application to the secretary at the schools concerned.

A SUCCESSFUL EXHIBITION. Dr. Spitta presided at a meeting of the council of the Sussex Record and Survey, and reported that the exhibition which had been held at the Brighton Art Galleries had been most successful, having been visited by nearly 9,000 people. An application from the Town Clerk of Worthing that the collection might be on view at the Worthing Art Gallery during October was agreed to.

TO GET RID OF THE MARKS caused by drying a negative unevenly, the "Photo-Revue" advocates intensifying the thinner portions locally. The mercuric chloride solution, which should not have a strength of more than two or three per cent., is applied with a brush, only a very slight superficial bleaching being necessary. After thorough washing, the negative is then placed in an old metol-hydrokinone developer slightly diluted, until the film is blackened again, and is then washed and dried.

WASHING ROLL FILM. To do this, writes "Viewfinder" in "The Lancashire Post," the film may be well rinsed after fixing to remove surface hypo, and then be rolled loosely together and dropped, edge up, into a 2 lb. jam jar filled with water. The jar is put under the tap and a rubber tube carried down from the tap through the centre of the roll to the bottom of the jar. The tap is turned on, and a moderate stream of water will be found to keep the film moving, so that the water has access to both faces. As the water enters at the bottom and flows out at the top, there is no danger of the hypo settling at the bottom. When the rubber tube is being inserted, one must be careful not to scrape the face of the film.

AMATEURS IN CATFORD and Forest Hill should note that an active society is in existence there, and get into communication with its honorary secretary, Mr. W. T. Browne, of 169, Woolstone Road, Forest Hill, S.E.

THE PORTSMOUTH CAMERA CLUB has been particularly successful this summer in its outings, which have been largely attended. Those societies which regard outings as "played out" would do well to note what a little well-directed energy can do.

THE KETTERING AND DISTRICT Art Society holds its exhibition from October 12th to 16th. There are two photographic classes, particulars as to which can be obtained from Mr. Herbert T. Winterhalder, 50, Rockingham Road, Kettering.

THE RAJAR CAMERA given monthly for the best print on Rajar papers has been awarded to J. W. Westgate, 21, Milton Avenue, Seamer Road, Scarborough, the paper having been purchased at Chapman's Falsgrave Road, Scarborough.

PHOTOGRAPHY and the printing crafts are a conspicuous feature in the educational syllabus of the School of Technology, Sackville Street, Manchester, the photographic department being under the direction of Mr. Charles W. Gamble, M.Sc.

PASTELS FROM PHOTOGRAPHS. Mr. Ralph Wright, of 1, Roe Street, Macclesfield, who undertakes this work, has sent us a capital example of his skill in this direction. For 5s. Mr. Wright offers to supply a 12 × 10 pastel from a photograph.

MR. CHERRY KEARTON is now photographing in British East Africa. "The Daily Graphic" is publishing an account of his trip, illustrated not with photographs of lions or other wild beasts, but with two of Mr. Kearton himself.

THE BOLT COURT SCHOOL of Photo-engraving and Lithography has issued its prospectus for the session, which will commence September 20th. Information as to the classes, etc., can be obtained from the Principal, 6, Bolt Court, Fleet Stret, London, E.C.

CONVENTIONS IN AMERICA are quaint affairs. We read in a contemporary that its "fair representative, Miss Myrtle De Forest, of Rochester, enjoyed extraordinary popularity. At Ontario Beach she was surrounded by seventy-five admirers; and at ten o'clock some of them procured a band of four pieces, which serenaded the young woman with popular airs."

AN "OWDHAMER." Here is a quaint tale from the photographic columns of the "Rochdale Times." The curator of the Oldham Art Gallery was recently showing a visitor over the gallery, and having a few minutes to spare gave the visitor a few points about the exhibits. Coming to a fine work of Turner's he waxed eloquent, and the visitor was evidently impressed. The curator, however, felt that his listener knew very little of the old master, when he remarked, "Was he an Owdhamer?"

CHANGE OF ADDRESS. Messrs. Standa, Ltd., are removing to No. 124, Holborn, London, E.C.

"THE GRAPHIC" announces a photographic competition for amateurs only, in which the first prize is £21, the second £10 10s., and the third £5 5s. A guinea will be paid for each picture, other than the winning ones, which is reproduced. The entries close Feb. 28th, 1910.

A FINE CATALOGUE has just been issued by Messrs. James A. Sinclair and Co., Ltd., of 54, Haymarket, London, S.W. The original catalogue of the firm contained a number of interesting articles on various photographic subjects, but these have now been largely added to and formed into a second volume, the present one giving only details and prices of apparatus and material. Not only does this catalogue contain a great many items which are not to be found in any other price list, but the goods listed include only those which the firm is prepared to recommend. The arrangement, which is a little different from the ordinary, is very convenient, the first place being given to cameras, everything else being arranged in alphabetical order. There are quite a number of unusual items which are very tempting—watertight camera cases for moist climates, a blind fitting for making any room perfectly dark, special albums, etc., etc. The catalogue is issued in stiff covers and with a cloth back, and will be sent, post free, for six stamps.

In Windy Weather.

WHEN in the field the photographer is often troubled and annoyed by windy weather, especially if a stand camera is being used. A hand camera can be manipulated in the wind with a fair amount of ease, writes "Viewfinder" in "The Lancashire Post"; but to hold on to the focussing cloth with one hand, and to the camera and tripod with the other, and to try and focus the image on the ground glass screen at the same time is not a very pleasant task when a stiff breeze is blowing.

Before planting the tripod on the ground, one should carefully ascertain from which direction the wind is blowing, and then stand the tripod in such a way that two of the legs are facing the wind, while the third is stretched out in the opposite direction to receive the force of the wind. If placed in this direction, the camera will be rendered fairly rigid, even in a strong wind.

To render the task of focussing an easier one, a small loop of elastic should be sewn to one side of the focussing cloth where it meets under the chin, and a button or hook on the other side for the loop to slip over. This will fasten the cloth securely round the head, leaving the hands of the operator free to do the focussing. A similar arrangement may be made with the front of the cloth, enabling it to be fitted over the front of the lens.



Elementary Photomicrography. By W. Bagshaw.

SEVEN years ago, Mr. Walter Bagshaw wrote a very admirable little treatise bearing the above title, which Messrs. Iliffe and Sons, Ltd., published at the popular price of one shilling. That edition having been exhausted, Mr. Bagshaw has practically re-written the work, bringing it right up-to-date, and the new edition, neatly bound in a cloth cover, price 2s. 6d. nett, has just made its appearance.

There is no doubt about the field for such a book, and there is also no doubt about the excellent way in which it is occupied by the author. Those who are brought much into contact with photographers know that photo-micrographers are to some extent a class apart. The interest of the special branch of their hobby generally monopolises their attention, and the nature of the operations necessary is so different from that of ordinary photography that a separate handbook is essential. The exposure problem, development and printing, are trifles to the photo-micrographer, whose real work is performed before the exposure is made, and who can usually repeat any exposure that may prove to be inaccurate. The first seven chapters of "Elementary Photomicrography" deal at length with these pre-exposure arrangements, and set forth in clear and simple language how to fix up the necessary apparatus, the microscope, the illumination, the condenser, dark ground effects, test objects and so on. Then follow five chapters on the photographic processes, and last, but by no means least, a useful little glossary.

The book is very fully illustrated, and forms an admirable guide for anyone taking up the subject. It can be obtained from any bookseller, price 2s. 6d. nett, or post free from our publishers 2s. 9d.

The Barnet Ortho Super Speed Plates.

THE Barnet Ortho plates have long enjoyed a reputation second to none, for all those qualities which the best orthochromatic plates should possess, and there has been no more popular output from the works of Messrs. Elliott and Sons, and none upon which the photographer, amateur and professional alike, felt that he could more rely. They have now followed up their earlier success by putting upon the market the Barnet Super Speed Ortho Plate, for which is claimed a rapidity of no less than 400 H. and D., and during the last few days we have had an opportunity of testing these plates, not in a speed tester, which is after all more an instrument for the plate maker than the plate user, but in the camera, a form of test which no doubt will appeal much more to our readers, and is more like the trial which they themselves would be likely to give to the plates.

The new Barnet product proved certainly to be exceptionally fast. Our advance samples happened to be half-plates, and so they were tried against some of the Barnet Ortho plates of older make, in a stand camera, the subject selected including flowers taken indoors. Work of this kind, especially in the fading light of autumn, requires the fastest plate that is available, and none can be too rapid. Tested in this way, the new plates seemed to be at least double the speed of the Barnet Ortho Extra Rapid, and therefore gave negatives which with half the exposure were equally successful. We made no trials of the plate with a colour screen, but it should be quite possible to use the new plate successfully for hand camera work with a three times screen on many subjects, which, without them, one would not be likely to attempt.

It is in this particular direction that we believe there is a very important future before the extremely rapid orthochromatic plate. The hand camera is used for serious work more and more every day; the serious worker it is who is alive to the advantages of the combination of an orthochromatic plate and a suitable colour screen, and what the serious worker does to-day, the rank and file of photographers do to-morrow. In this direction, therefore, as well as in others, there is ample field for an ultra rapid high-class orthochromatic plate.

The new plate is "high-class" in other directions beside that of speed. It developed up quickly and cleanly to full density, as all the Barnet plates do, and gave a fine range of gradation throughout. The developer we employed for our tests was pyro-soda, adding to our ordinary formula potassium bromide equal to one-eighth the weight of the pyro, as this is what the makers recommend. The developer seemed very suitable, and the plates proved to be first-rate orthochromatic ones of extreme speed.

Materials and Instuctions for Oil Ozobrome.

THE application of the oil process to ozobrome has been receiving a great deal of attention at the hands of the inventor of Ozobrome, Mr. Thomas Manly, and an excellent little booklet giving full directions has just been published by Messrs. Ozobrome, Ltd., of 122, Allcroft Road, Kentish Town, London, N.W., and will be sent free on demand.

Like ordinary ozobrome, oil-ozobrome may be worked in two different ways. We may take a bromide print or enlargement, and after bleaching out its visible image develop up a picture by applying oil pigment in the well-known way, or we may apply to the bromide print a sheet of a special oil-ozobrome paper, which has been soaked in the bleaching bath, and leave the two, after squeegeeing, in contact for from five minutes to a quarter of an hour. They can then be separated, preferably under water, and the transfer paper washed and dried. After drying it may once more be soaked in water, and is then ready to be inked up. The bromide print, which has been bleached in the process, may be redeveloped and used as the basis for a second transfer print, or it may be fixed in hypo, to which a little ammonia has been added, washed, dried, and itself inked up.

Which of the two methods the photographer will select must depend upon circumstances. The transfer method has its advantages, but it has the drawback that it gives a picture reversed right for left. If a bromide enlargement is made for it, this may be remedied by the simple method of putting the negative in the enlarger the other way round, giving a reversed bromide enlargement, and, in its turn, an oil ozobrome that is unreversed. Probably the first or direct method will appeal to most as best fulfilling their requirements.

The Ozobrome Co. supplies all the necessary materials for both processes, and has now issued the "Ozobrome Pigmenting Preparation," put up in tabloid form by Messrs. Burroughs, Wellcome, and Co. For those who live at a distance, and for all those who only wish to work the process occasionally this will be found very convenient, nothing more having to be done than to dissolve one tabloid for each ounce of water, and the working solution is at once ready. For those who prefer it the Ozobrome pigmenting solution can be obtained, as before, in concentrated form.

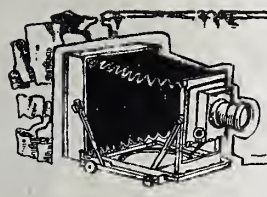
The oil-ozobrome process, from the great control which the photographer can exercise over his results in the character of the paper support, in the colour of the ink, and still more in the tone values, is at the present moment, in one form or another, the most popular method for exhibition work. The method and materials of the Ozobrome Co., the formula for

which it should be remembered is the patented property of the company, are certainly the most reliable and satisfactory method of working, and the only legitimate method. Those who want to take up the process will be well advised, therefore, if they go straight to the fountain head and get the company's booklet, and the company's products, which have been worked out and prepared under Mr. Manly's own supervision. The sulphuric acid treatment, with risk of discolouration and of blistering, has been done away with, and the process for oil workers made both simple and certain.

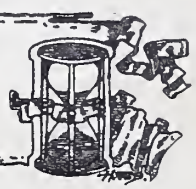
Jonokite, a Paper which only Requires Fixing and Washing.

JONOKITE is the curious name given by Messrs. M. S. Berger and Co., of 106-110, Kentish Town Road, London, N., its makers, to a printing-out paper, which only needs fixing and washing. The instructions direct that the printing should be carried on until the darker parts of the picture are completely bronzed; that is to say, to a much greater depth than is required with ordinary P.O.P.

The tone of the finished picture is determined by the strength of the hypo solution into which the print is put direct without washing. Six to eight minutes in a strength of eight ounces to the pint is what is recommended for purple tones, twenty to thirty minutes at a strength of one ounce to the pint for sepia tones, browns and reds being intermediate. The makers point out that the maximum time given for the fixing should not be exceeded, that after fixing the prints should be washed for about an hour in running water, or in several changes, and that the prints on Jonokite may be squeegeed or otherwise finished in the same way as ordinary P.O.P. They claim that it will keep good before use for an exceptionally long time.



The Week's Meetings.



MONDAY, SEPTEMBER 20TH.

Walthamstow P.S. "How I make Lantern Slides." G. Williment.
Wallasey A.P.S. "The Lake District." Mr. Queen.
Bradford P.S. Print Night.
South London P.S. "Models I have Photographed." P. R. Salmon.
Bowes Park and D.P.S. "Clouds and Lightning Photography." H. Wilkie.

TUESDAY, SEPTEMBER 21ST.

Hackney P.S. "Our Easter Trip." A. J. Linford.
Nelson C.C. Print Evening.
Manchester A.P.S. "Enlarged Negatives." S. L. Coulthurst.
Sheffield P.S. Social Evening.
Fernhead W.G.P.S. "Notes about Exposure." F. Moore.

WEDNESDAY, SEPTEMBER 22ND.

Everton C.C. "Lantern Slides by Reduction." J. Mansell.
South Suburban P.S. Affiliation Prints.

THURSDAY, SEPTEMBER 23RD.

Hackney P.S. Outing.
Handsworth P.S. "Ensyna." J. Gough.
Trent C.C. "Bromide." E. B. Wain.
Nottingham C.C. Annual Meeting.

SATURDAY, SEPTEMBER 25TH

Southend-on-Sea P.S. Great Wakering.
U. Stereoscopic S. General Meeting.
Small Heath P.S. Dodderhill.
Everton C.C. Hoylake.
Bootle P.S. Rufford.
G.E.R. Mech. Inst. Monkwood.
Coventry P.S. Baginton and Stoneleigh.
Paisley P.S. Bowling.
Worthing C.C. Burgham.
Hackney P.S. Outing.
Preston C.C. Salwick.
Oliver Goldsmith. London.
Nottingham C.C. Little Eaton.
Liverpool A.P.A. Dovedale.

MONDAY, SEPTEMBER 27TH.

Queen's Park A.P.A. Stirling.
Glasgow S.P.A. Callander.
South London P.S. Monthly Competition (Lantern Slides).

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Ho.born.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

SUBSCRIPTION.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
Twelve Months	6	6	Twelve Months	10	10
Six Months	3	3	Six Months ..	5	5
Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

REMITTANCES.—Postal Orders, Cheques, etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

EDITORIAL NOTICES.

ADDRESS.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.



Notes on Photographic Portraiture.



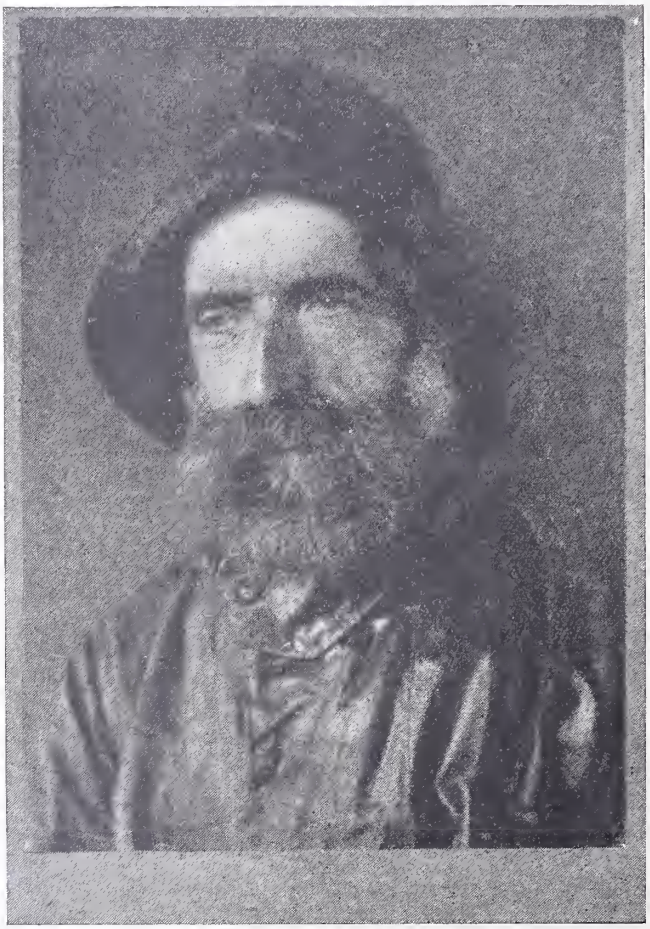
Being extracts from a paper read by Mr. Nelson Jennings before the Norwich and District Camera Club. (*Concluded from page* 218.)

AT home photography is quite the best kind for portraiture; but, of course, there are difficulties attached to it, and the principal one of these is in connection with the light. Anyone who has studied lighting at all will know how things can be made to look entirely different by altering the direction of it. So that the direction of the light in portraiture is of vital importance. In a photographic studio, fitted with blinds throughout, the light is under complete control, and can be directed to suit any type of face. For instance, take the case of the bulbous head and weak chin.

Light coming from above would accentuate his peculiarities. The upper portion of his face would be thrown into prominence, and the retreating chin by being in shadow would be quite obscured. In this case, then, side light would be used, so that both would receive equal illumination. Again, thin angular features would require a broad or front light, while a smooth flat face sitter needs lighting from a narrow point, so that what features this particular person did possess would be thrown into relief.

Such things in a properly arranged studio are of no difficulty, but in a room with, say, one window they are more perplexing.

As a general rule, top light gives character and strength to a face; but there are very few faces that will stand it. Side light is usually more becoming; at any rate, it is not so trying. In a room with one window we only get side light, so we must consider how to use it to the best advantage.



An Old Salt *By James Marshall.*

As one cannot alter it, we must reverse the order of things, and adapt the sitter to it, to procure the particular effect aimed at. In judging the window, the lower half can usually be left out of the reckoning. What light comes through there is not of much use, and is probably only reflection from the ground without. The nearer the sitter is to the source of light, the greater the intensity. That means that the contrasts are stronger. It follows that as the sitter retires from the window the light becomes weaker, and its direction more horizontal. Here, therefore, we have at our command the means of raising or lowering the tones of the picture.

With a window of ordinary size, however, two or three feet make an enormous difference; and it is not wise to go to extremes. Getting too far away renders the lighting flat, while if one is too near, a very harsh effect is obtained, without half tones. For general purposes, the best place for the sitter is to one side of the window, when the light from the sky falls at an angle of 45°. In this one has to be guided by the choice of background to a certain extent.

One must be careful to avoid patches or lines being brought into close proximity to the face. The portion surrounding it should be kept as clear as possible.

Keep the Background Dark.

As a rule, it is better to keep the background dark, so that it will tend to lighten the shaded side of the face. This is a serious difficulty in indoor photography. The warm shadows of the face, which to the eye seem quite normal, do not register on the plate at anything like their proper value. Consequently if we expose for the lighted portions we leave the shadows bare, while if we expose for these we over-expose and flatten the lights. The remedy is to illuminate the shadows with a reflector. A table cloth or sheet spread upon the clothes' horse will serve the purpose. This must be arranged with care, or it will be overdone, and it is liable to put false lights into the eyes. A second window is valuable in this respect, but here, too, we must be careful to keep it subdued, or we get a cross light that is disastrous. It is as well to diffuse it by drawing a loose curtain over it.

When the sitter has been placed in the position suggested, the different effects in lighting are arranged by the position of the camera. By getting on the opposite side of the window, a normal side light is obtained. If a sharper light is required, the camera is moved towards the centre of the room. But if a softer light is desired, then it is better to move the sitter away from the window, rather than turn

him towards it. The latter course would only flatten the face by throwing front light upon it. As one works the camera round into the room, increased care must be taken to protect the lens from the light, or the plate will get fogged. The best way is to make a habit of standing between the window and the lens when making the exposure, so that the body cuts off all direct light.

The length of exposure is, of course, determined by the conditions under which the work is to be done, the amount and direction of light, the speed of the plates, and the size of the stop. In a general way it is inconvenient, as well as unnecessary, to use a small aperture. So long as there is not too great a contrast in definition between the sitter and the background, the larger it is the better. I never use one smaller than f/11. This is dire necessity with me, as my usual subjects for indoor portraiture are babies and invalids, and it is a case of a quick exposure or nothing.

Over-development is a common mistake. Our object must be to reproduce on the plate the tone of the picture that has been arranged, and to do this we must develop accordingly. The tone of a room is low, therefore the negative must be kept thin. By allowing the high lights to become dense, the shadows are made deeper, and the effect is changed.

The question of background is much more important than some imagine, and is apt to be neglected. Attention is usually given entirely to posing and lighting, the setting being left to look after itself. A perfectly plain background is the vogue just now, and while it is infinitely better than an inappropriate one, I still think it is a cowardly way out of the difficulty. Professional photographers have to keep by them a varied assortment of painted canvasses, so that something as appropriate as possible can be placed behind every type of sitter.



MARGARETTA. BY MISS JAGO.

Awarded the Bronze Medal in the Advanced Workers' Competition.



"SANCTUARY—TOO LATE." (See page 240.)

BY ALLEN LONSDALE.

Awarded the Silver Plaque in the Advanced Workers' Competition.

An Easy Method of Framing Small Prints.

By Sydney J. Tayler. *Special to "Photography and Focus."*

I HAVE recently evolved a simple, and at the same time effective, method of framing prints up to about whole-plate, which has the advantage of requiring no special tools nor carpentering skill, the work being done with a hand fretsaw, gimlet, and screwdriver. It also necessitates no glass-cutting, as any odd-shaped piece, provided it is large enough to cover the print, will serve. There are no mitres to cut for corners, nor rabbets for holding the glass, and the cost is small, depending on the kind of wood employed.

There are various fancy woods, light and dark, sold for fretwork, and a good wide plank should be purchased, so as to avoid any necessity for joins. The better the wood, and the more beautifully it is "figured" of course, the better will be the finished result. Dark woods may be simply oiled, but lighter ones will probably require staining. A plank of common backing board will also be wanted, and may be procured for a few pence at the picture-framer's.

The print is first mounted on cardboard in the usual way, and the card trimmed to the same size as the glass. Since the exact size of the glass is of no importance, the method furnishes an easy means of using up spoilt plates. An opening of the size of the picture is then pencilled on the wood, or on a sheet of paper pasted on the wood, and the size and shape of the frame pencilled again outside this. There is plenty of scope here for variations, and wide margins may be left at top and bottom, with narrow ones at the side, remembering always that the frame is to take the place of a wide mount, and that its proportions may make or mar the picture. This done, and the frame cut out with the fretsaw, a piece of backing board is cut to a rather smaller size, and the whole may be put together.

The backing board is attached to the frame by putting in a single screw, and turning it nearly home, but not quite. The print and glass are then adjusted between the two boards, until the picture is seen in its right position through the opening, and, great care being taken not to disturb it, the remaining screws are fixed, as many as the photographer may think fit. The print and glass are thus sandwiched between the backboard and the frame, and the job is practically done.

There are, however, little ways of making the result look more finished, and I suggest a few, whilst the reader will, no doubt, easily think of others. The opening and the edges of the frame may be bevelled with a wood file or a piece of glass paper stretched on a board, and the corners may be rounded in the same way. (The corners of the opening should not be rounded, or the work will look cheap.)

The screws with which the back and front are fixed together may be used as a part of a decorative design, being driven right through, and then cut and filed down flush with the wood, or left projecting slightly as knobs, and the frame itself may be decorated by partial staining, as in the specimen illustrated herewith, the lines round the edges being painted on with Jackson's wood stain and a sable brush. I think also that effective use might possibly be made of decorative piercings round the edge of the frame. The simpler forms of frame, however, as stated at the beginning of this article, may be compassed by almost anybody, and so long as one keeps to the plain wood frame, oiled or stained, and without decoration, one cannot very well offend against good taste.

The back is finished off in the usual way, by pasting brown paper over it and attaching brass plates for hanging.



A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut throat bandits in the path of fame."—BURNS.

IN looking through my batches of beginners' and other competition prints, I am constantly running across some specimen of what I mentally label "the obviously impossible." One called "Open Sea Study" is a case in point. Can it be that the maker of this genuinely fails to see its absurdity? If he did see its absurdity, why did he send it in? Or, at least, why did he not, as far as in him lay, rectify its most glaring fault before doing so?



Open Sea Study. *By R. Butterworth.*

The horizon line of the sea is palpably rushing downhill. If the maker of this picture has ever been at the seaside—I say "if," for really one begins to doubt even the evidence of this photograph!—he must surely have observed that the apparently existent line we call the horizon, if it possesses no other property, has this one, that it is—well, horizontal. Nevertheless, he enters for a competition a picture of the sea with its horizon sloping! And half a minute's work with the trimming knife, or a mere tilt of the mask before printing, would have rectified this atrocious error!

Heigho, it's a queer world to be sure!

A notable thing about these occasional "obviously impossible" prints is that the glaring fault which first catches one's eye in looking at them often blinds one to additional faults hardly less vital. Even suppose this print, for instance, had been trimmed straight, there would have remained other items which still would have spoilt it. To begin with, the sky is too blank; secondly, there is no principal object; and finally, there is no atmosphere.

An open seascape may be, and often is, a fine pictorial subject; but it demands as careful composition as any landscape The lovely presence of waves is not enough. To the eye a vast stretch of rolling ocean is always beautiful, or, at any rate, impressive, but this is largely due to colour and to nuances of light and shade too subtle to translate by the camera. Therefore, we need some sort of emphasis.

Observe the comparative success of "Sunset." To what is it due? Mainly to the emphasis conveyed by the line of dark objects half embedded in the sand, presumably the remains of an old jetty. They "make" this picture in a most remarkable manner; for their presence not merely gives us a "principal object," but aids in creating that atmosphere which "Open Sea Study" so markedly lacks. They throw back the distance, and simultaneously lay stress on the foreground.



Marbles. *By Albert Green.*

The dark hue of the sea compared with the lightness of the watery shore is a delicate note, too; and the orb of the sun, with its bold glaring reflection, all help in the *tout ensemble.* But if we try and imagine the picture with that row of sunken piles subtracted or absent, the whole composition at once becomes comparatively backboneless.



Sunset. *By H. S. Prince.*

"Open Sea Study" cries out for precisely what "Sunset" has got. Compare the two, and you have, spread before you, everything there is to be said on the art of selection of subject, in photography. "Open Sea Study" has a dull and unemphasised foreground, a vacuum sky, a horizon which, apart from its slope, jerks out at the edge of the picture. "Sunset" has a good, but quiet, foreground, an atmospheric sky, and, owing to the carefulness of its composition, its marginal lines appear to cease comfortably at the edge of the frame, for the whole subject is well within its own boundaries.

"A Country Lane" is another of the "obviously impossibles." The ocean of halation in the sky, due perhaps less to an unbacked plate than to under exposure and over-development, is clearly the chief fault; but even had the tree outlines been clearly defined I doubt whether the print would have had the slightest pictorial value. It is top heavy.

The photographer in this case seems to have been hypnotised by those tree tops; he seems not to have dared to leave them out. Yet they are quite unnecessary. Trim them all off—trim off about two-thirds of the entire print—and you get a far more pictorial result, and far truer to the title.



A Country Lane. *By J. Shrieves.*



A Derbyshire Lane.

For, as it stands, this is merely a photograph of tree foliage, and not a photograph of a country lane at all; the lane part of the scheme is at the most a mere incident at the bottom of the spotty expanse of paper.

I am able, as it happens, once again to offer a striking comparison, and to demonstrate how excellently a country lane can be rendered in a photograph without the aid of any sky or tree tops at all.

For a print, "A Derbyshire Lane," lies to my hand, and proves my argument, at a stroke, infinitely better than could pages of the most inspired sermonising. It is a charming little work, pleasantly characteristic of the suave beauties of an English countryside.

The author of "A Country Lane" could have done almost or quite as well with his materials if he had been less keen to "get everything in." The two prints capitally illustrate the virtue of omission.

There is something wrong with "Marbles," but it takes a moment's consideration to detect the wrongness. It consists of the low view-point of the camera, which would seem in this case to have been held scarcely above the road level.

The result is a curious feeling of unreality, which the fact that the figures of the boys are seen against a background of sky and tree branches helps to intensify.

We do not kneel down to watch a game of marbles; we look on it (more or less) from above. Hence, this is an aspect of the game which is a shade grotesque, and this sense of grotesqueness spoils, to a great extent, the pleasure we might have taken in the otherwise satisfactory little group, who, for a wonder, are fairly unself-conscious. Hold the picture up, and look at it with the eye about the level of its bottom edge, and you see it at its best. But it should not need this. It ought, too, to have had a trifle more foreground. The whole group is insufficiently supported, and is dropping out at the lower verge of the print.



Crossing the River. *By G. L. Whyte.*

Every picture should be well "within its frame," as Whistler used to say, or its effect will be restless and disturbing. However, the mere fact that some important line is cut off by the edge of the frame does not necessarily spoil the effect. The line of the horizon in "Sunset" is cut off by the frame, yet the picture is thoroughly within the frame, while "Open Sea Study" is not. And although no important lines in "Marbles" are cut off by the frame, it is not well within its frame, for the centres of interest are too scattered, and trespass too near the edges.

In "Crossing the River" we have a picture whose chief object—the bridge, with the train crossing it—goes outside the frame; yet the fault is not a serious one, partly for the reason that the train is entering, not leaving, the composition. And this apparent fault of the cut-off train and bridge somewhat blinds us to the main fault in the picture, which is its lack of concentration. We have two subjects here, the bridge and the river, and the one distracts attention from the other. True, the river in a sense explains the bridge, but if the presence of the river is only intended to explain the bridge the river ought to have been less prominent.

I don't think that, in any case, this would have made a picture. The bridge is too raw and the train too ugly. Nor does the river by itself seem very pictorial. But the fact remains that if we divide this into two halves we have two pictures—an upper and a lower one, each of fair completeness. And the picture which can, by a slice of the knife, be turned into two pictures is not a strong picture as a whole; on the contrary, it is a picture whose strength is permanently halved.

PATENTS HAVE BEEN TAKEN OUT by the Zeiss Company for a yellow screen for autochrome and other plates that have to be used in the camera with the glass side toward the lens. Instead of the filter having plane sides, one or more of its surfaces is curved, so that it acts as a weak negative lens. In this way it increases the focal length of the lens to which it is fitted to allow for the different position of the plate.



About Making Exposures.

An Article for Beginners.

By W. GREEN. Special to "Photography and Focus."

IT has been said very truly that when once the exposure has been made the quality of the picture has been determined. We can dodge about in different ways, but we cannot make a really successful print from an improperly exposed negative; whereas a modern dry plate which has been properly exposed takes a lot of spoiling in the after processes.

The great problem of exposure is, of course, its duration. Much has been written on this topic, but the only way, short of years of dearly bought experience, is to use a meter, of which there are several excellent patterns on the market. Length of exposure is not the subject of this article, however, but some of the minor matters connected with the act of exposing, which, if not attended to, can spoil a negative quite as effectively as can be done by an exposure incorrectly timed.

One of the first things the user of a hand camera has to learn is to appreciate the relation between the picture on the finder and the picture on the plate. Except with a reflex camera, the finder does not and cannot show under all circumstances exactly what will fall on the plate, no more and no less. The object seen in the centre of the finder should be that which would be on the centre of the plate, and approximately all that can be seen on the finder should appear on the plate; but it is not safe to go beyond that.

The exposure should be made therefore when we can see in the finder all the subject which we wish to photograph, with a slight margin to spare all round for contingencies. The subject should occupy a fair proportion of the space. The mere fact that it is on is not sufficient; the photographer must accustom himself to regard it in the finder as it will appear in the picture, and so to avoid those big blank expanses which figure in the work of so many beginners.

The level with which most hand cameras are now fitted is not of very much use. Few can look at it, or think to look at it, when sighting the object, and most of us have a sufficiently keen sense of levelness to hold the camera quite as level without it as can be done with the help of the comparatively insensitive levels usually fitted.

One of the mistakes often made by a beginner in photography is in "pressing the button"—an operation often performed like ringing an electric bell. When we press the push that is on the wall, the latter, even in the most jerry-built of houses, will stand the strain of our pressure without moving; but when we press the button of a camera which is held in the hand, if we do it in the same way, we are certain to move the camera, and so to blur the picture.

The photographer, therefore, must learn that while part of the camera or shutter is pushed to make the exposure, some other part must be pulled to counteract the push. The best way to do this will depend on the construction of the camera, but with those which have a folding baseboard and a lens with a diaphragm shutter, it can generally be done by putting the fingers under the baseboard and the thumb on the shutter release, and then contracting the muscles of the hand so as to draw the release down towards the baseboard without swinging the camera downwards at the same time. It sounds complex, but it is not so really, and the purpose of the movement is so clear that when once the beginner's attention is drawn towards it, he is not likely to go wrong.

That attention needs calling to it is shown by the way in which anybody not a photographer sets about making an exposure when asked to do so that the photographer himself may figure in the picture.

Most folding hand or stand cameras when sold are provided with a pneumatic ball and tube. When the camera is held in the hand these should not be used, as the movement required to press the bulb is much more than is needed to work the ordinary release, and so there is a chance of shaking the camera. On the other hand, when the camera is on a stand, the ball and tube should always be used, as under those conditions, for reasons into which I need not go, the camera is more likely to be shaken without than with them.

A little matter, but one that is very likely to be overlooked, is to make sure that one does not touch the camera or tripod while making an exposure with the camera on a stand. I have seen a photographer put his hand on a camera that was on a rickety tripod to steady it for the exposure, unaware evidently that the chances of movement were increased rather than decreased by doing so.

If the camera is unsteady, a weight may be put on it; and it is surprising how very flimsy a support can be used



SHRIMPS. BY MISS S. C. BURNSIDE.

Awarded a Certificate in the Beginners' Competition, just closed.

in such circumstances, if a little care be taken, provided always there is no wind. If there is any wind, a fairly rigid stand becomes a necessity, or vibration is sure to show in the result.

If, after the shutter of the dark slide has been drawn out, we wait long enough to let any tremor caused by doing so to subside, and then make the exposure by means of the pneumatic ball, a very slight support will serve. This is very useful at times, when the photographer has not got a tripod, and is sufficient reason why a pneumatic release should always be carried.

There are also a good many places where the use of a tripod requires special permission, but where there are no restrictions placed on the hand camera held in the hand. When these are interiors, a support of some kind becomes a necessity, and no objection is usually raised to the use of a chair, a table, or even a pile of foot-stools as a stand.

One cause of failure in making the exposure is not likely to be met with when a box camera is used, but is characteristic of badly made or worn folding cameras.

This particular fault shows itself by the bottom of the negative being sharp when the top is fuzzy. This is caused by the front not being held firmly at right angles to the baseboard, so that when a little pressure is put upon it by the finger on the release of the shutter, the front leans forward, and if the lens is a good one working at a large aperture with a flat field, the image at the top of the focussing screen is at once thrown out of focus.

Any looseness or shake in this part of the camera should therefore be seen to and remedied as soon as found, if necessary putting the camera in the hands of a repairer.

The shake may not be due to wear or to faulty workmanship, but simply to oversight. Most of these cameras are provided with some arrangement for clamping or fastening the front when it is drawn forward, and if this is not fastened the front has not the rigidity its maker provided.

The tendency now is to make the clamping automatic, and as there must always be a danger of the movement wearing loose, the camera should not be extended with any more vigour than is absolutely necessary.

Developing Prints on P.O.P.

A PARTIALLY printed picture on P.O.P. can be developed up to full strength if it is first placed for ten minutes in a ten per cent. solution of potassium bromide. It is then washed for a quarter of an hour and developed. The developer is made by dissolving forty grains of hydrokinone and a quarter of an ounce of sulphite in ten ounces of water. In another ten ounces are dissolved half an ounce of sodium carbonate, half an ounce of ammonium carbonate, and twenty grains of ammonium bromide. Equal parts of the two solutions are mixed. After development the prints may be well washed for half an hour, and then toned and fixed just as if they had been printed right out



GREY STREET, NEWCASTLE. BY EASTEN LEE.

Awarded the Bronze Plaque in the Advanced Workers' Competition.

Some Comment upon Three Pictures by Mr. Allen Lonsdale.

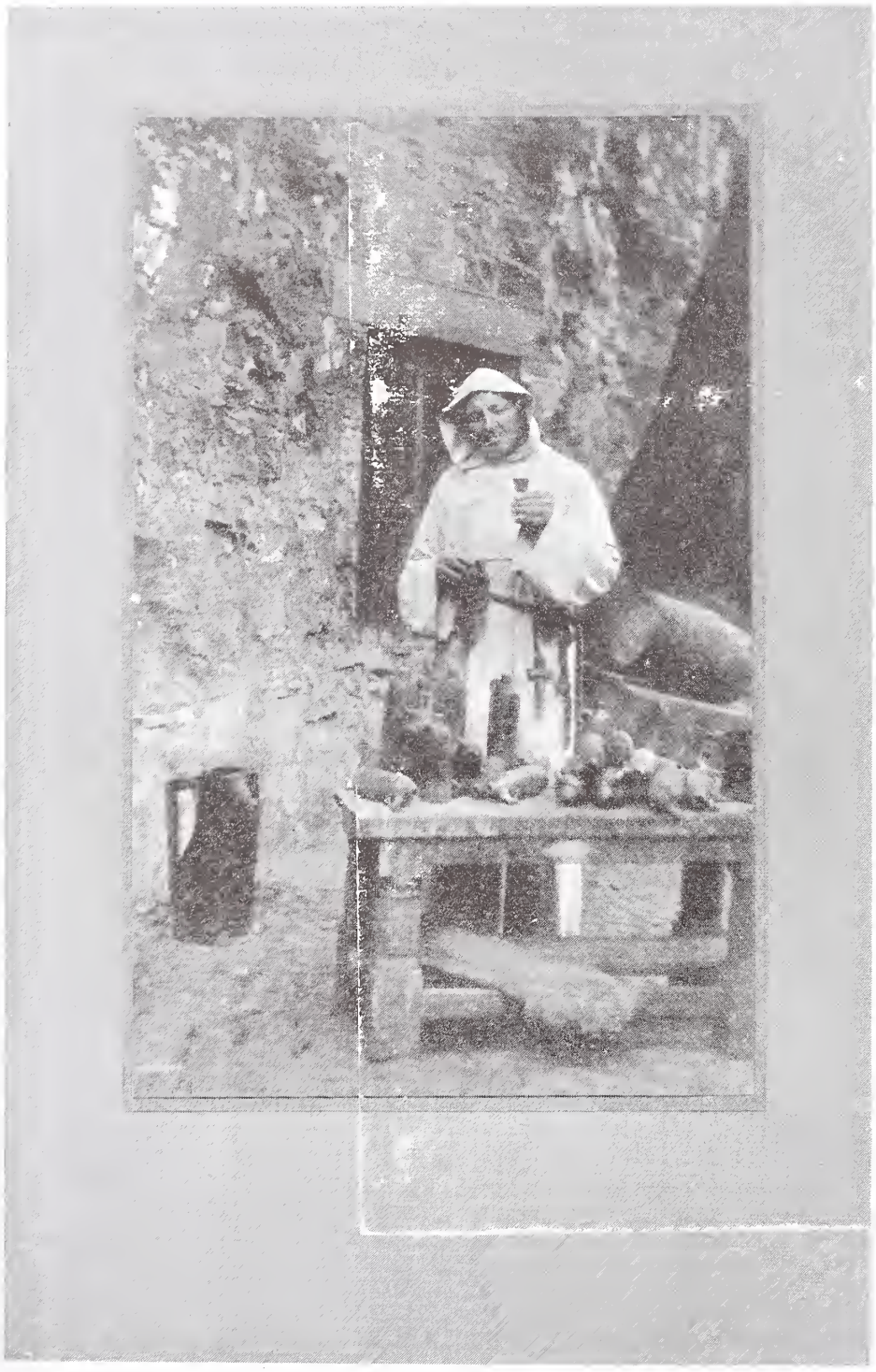
A NEW competitor, if we mistake not, entered the Advanced Workers' Competition a month ago, and succeeded in winning the silver plaque with the fine print which we reproduce this week on page 234. The man at arms fleeing wounded to secure the sanctuary of the church, falls dead at the moment when his hand is raised to grasp the knocker by which he can demand admission.

The subject is an admirable one for a painter, but for the camera it possesses that feeling of anachronism which is inevitably called up by a photograph of some bygone event, which we know could not itself have been recorded by photography. We cannot dissociate ourselves from the idea that we are looking merely at a dramatic representation of something that has gone by. In other respects, however, Mr. Lonsdale has managed to steer clear of theatricality wonderfully well.

The Cathedral doorway in "Sanctuary—Too Late" is quite free from anything to suggest the twentieth rather than the fifteenth century; the figure is not only well posed to tell the story suggested by the title, but is so arranged that the face is not too plainly seen, so that the unreality of the actor is concealed. Some of the high lights on the costume assert themselves a little too much, and the figure, from not being quite sharp, and apparently also from a little under-exposure, is hardly quite as distinct from the background in parts as it might be. But as a whole "Sanctuary" succeeds, and succeeds in a direction in which success is not at all easy.

The picture which Mr. Lonsdale calls "A Doubtful Bottle" (reproduced on this page), although not so striking a success as "Sanctuary," is still a very clever piece of work. It is a little too crowded with accessories, and a little wanting in strength, but, like the other, is, on the whole, remarkably free from unreality. The weakest part in this respect is the face of the model, where the expression is not altogether the critical one suggested by the title.

The third of the series, "Durham" (page 241), calls for less comment, since the subject is less distinctive. The view-point is not the usual one from the railway station, but shows us another, and not quite so striking, aspect of the Cathedral City. The feeling here is a want of something in the foreground; the whole is too panoramic to be quite effective. The tones of the sky and of the distance are very true, and the lines of the clouds harmonise very well with those of the subject. The technique of all three prints was excellent, and the group formed a very notable feature of the competition.



A Doubtful Bottle *By Allen Lonsdale*

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MAKING THE BEST OF IT

A Series of Suggestions for Making Good Prints from Poor Negatives

By Chas. M. Lewis. (Special to "Photography & Focus.")

General Fog.

GENERAL fog on a negative is a defect which in itself may do little harm unless it is very severe. It is always to be avoided as much as possible, as it is an indication that something is wron , and must be put right or failure will result. If the negative is fogged so badly that it will not give a print, there is no remedy for it at all; if the fog is only enough to delay printing, then it must be put up with.

Intensification by itself does not improve a fogged negative, as the fog intensifies as well as the picture; but it is sometimes possible to effect an improvement by reducing first with ferricyanide and hypo and then intensifying. The reduction should be followed by the most thorough washing, and then the uranium intensifier should be used. This is made by dissolving ten grains of uranium nitrate in one ounce of water, and ten grains of potassium ferricyanide in another. To each of these ten drops of acetic acid are added, and then the two solutions are mixed and the negative is immersed in them. The image turns a yellow brown colour and does not seem to gain much in density, although its printing value is greatly increased. It should be washed for five minutes in three or four changes of water, to each pint



Durham (*see page 240*). *By Allen Lonsdale.*

All fog means a degradation of the picture, and if any shows itself the amateur should set to work to hunt out its causes, and not rest satisfied until he has done so and removed them. No matter whether fast or slow plates are used, when a negative is laid down on a sheet of white paper its unexposed edges should appear as almost clear glass. The only exception should be in the case of the edges that abut on the sky with unbacked plates, when halation is almost sure to cause some deposit to be visible there; but the rest of the edges should be clear enough. Depend upon it, if all the negatives do not stand this test, there is something wrong. The developer may be too powerful or kept on for too long a time or the dark room light may not be safe.

There is another kind of fog which should be absent. This does not affect the unexposed edges of the plates, but only the part which bears the picture. It may be due to stray light in the camera, to a dusty lens, or to over-exposure. There is no satisfactory remedy for this. It causes the prints to be too flat, as does the fog mentioned in the previous paragraph; and the best way of dealing with it therefore is by the use of some printing process, such as gas-light paper, which gives the maximum contrast.

of which a dram of acetic acid has been added, then given two or three changes in plain water, the washing lasting more than a quarter of an hour in all, and the plate is then finished.

Local Fog.

LOCAL fog is due to light getting to the plate other than by the lens, and is a most difficult defect with which to deal. A very common cause is a defective dark slide, and another is the putting in of one corner of a "draw out" slide before the other. This fog usually takes the form of black streamers proceeding from the point at which the fog had its origin; and as there is generally no image beneath it there is nothing gained by its removal, were this easy or possible.

In such a case there is nothing for it but to trim the print so as to get rid of the fog, or else to work on it with water colour or pencil, so as to conceal it. This last is not easy, as the edges of the fog are generally so softened or vignetted that the most careful handwork is needed if it is not to show

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Rules.

(1) Each competitor can send as many prints as he likes, but each print must bear on the back the coupon, published each week, the name and address of the sender, the title of the picture, and no other writing whatsoever.

(2) No print will be eligible that is larger than 5½ × 3½in. (postcard size) or 5 × 4in. Nor are mounted prints eligible.

(3) No handwork other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute, the editor shall have the right to call for the negative from which the entry purports to be a simple direct contact print.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce, without payment, any of the prints sent in, winning or otherwise.

(6) All entries must be addressed "Beginners' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date at the very latest.

Advanced Workers' Print Competition.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates of honourable mention.

Rules.

(1) All photographs must be sent addressed "Advanced Workers' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., postage paid, to reach there not later than the first post on the closing date, and must contain a stamped addressed envelope or label (*not loose stamps*) if they are to be returned.

(2) Each photograph must be mounted, but not framed. Prints in slip-in mounts are not eligible. Each must bear on the back the name and address of the sender and the title of the picture. No letters or other communications must be enclosed with the prints. Every print must bear attached to its mount a coupon for the competition of the month, which will be found in each issue of the paper.

(3) Each photograph must be the work of the competitor as regards selection and arrangement of the subject, exposure and development of the negative, and printing, development or toning, and mounting of the print.

(4) The prints which are accompanied by stamped envelopes or labels will be criticised by post, and the editor shall have the right to reproduce any of the prints, winning or otherwise. The awards will be made a fortnight after the closing date.

(5) Awards may be increased or withheld at the absolute discretion of the judge, and in all cases of dispute the decision of the editor will be final.

(6) There is no restriction as to the eligibility, except as set forth in these rules, and except that the same negative must not be used more than once in the competition. That is to say, that a print from it once submitted, all further prints, however varied, are ineligible.

(7) Neither editor nor publishers of *Photography and Focus* shall be held in any way responsible for the safety of prints or for their return to the competitors.

(8) The sending of a print to the competition will be regarded as a declaration to the effect that it is eligible under these rules, and that the competitor agrees thereto.

Closing Date.—September 30.

Special Subject Competitions. Open to all Readers.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates.

Rules.

(1) The subject of each photograph must be that announced for the particular competition.

(2) Each competitor can send as many prints as he likes, but each print must bear on the back the name and address of the sender, the title of the picture, and no other writing whatsoever. Each print must bear a coupon for the month, which will be found in each issue of the paper.

(3) No print must be mounted. No hand work other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute the editor shall have the right to call for the original negative from which the entry purports to be a simple direct contact print. Enlargements are not eligible.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce, without payment, any of the prints sent in.

(6) All entries must be addressed "Special Subject Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date.

Subjects and Closing Dates.

A Harvest Scene. Closes September 30th.

Woodland and Water. Closes October 30th.

A Still Life subject, suitable for a Christmas or New Year Card. Closes November 30th.

An Indoor Portrait. Closes December 31st.

Lantern Slide Competition. Open to all Readers.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal, and four Certificates in each Class.

Classes.

A. Landscape with Figures (including seascape, etc.)

B. Landscape without Figures (including seascape, etc.)

C. Architecture.

D. Portraits and Figure Subjects.

E. Still Life.

F. Scientific Subjects.

Rules.

(1) All are open to amateur and professional without any restrictions. All slides must measure 3¼in. by 3¼in.

(2) One silver plaque, one bronze plaque, one bronze medal, and four certificates are offered in each class.

(3) All slides which take any awards will become the property of *Photography and Focus*, and will be sent round amongst the societies and other such associations as apply for the loan of them. Any other slides may be selected by us for circulation in this manner, and will be paid for at the rate of half-a-crown each.

(4) Competitors may send any number of slides in any class, and may be recorded as winning any number of awards, but no competitor will actually receive in the competition more than one silver plaque, one bronze plaque, one bronze medal, and one certificate, on which all his awards will be recorded.

(5) Every slide must bear the competitor's name, its title, and its class. With the slides must be sent an envelope containing the name and the full address of the competitor, a list of the titles of all the slides he is sending in, and the class in which each is entered, together with a stamped and addressed label (not loose stamps) if the slides are to be returned (if unsuccessful). But under no circumstances can the editor or the publishers accept any responsibility for slides sent in for competition or for their return, nor can slides be returned which are not *accompanied by* the stamps as above.

(6) All carriage or postage must be paid by the competitor.

(7) The last day for receiving is Monday, October 18th. The slides must be addressed "Slide Competition, the Editor, *Photography and Focus*, 20, Tudor Street, London, E.C."

(8) Not more than one slide from a negative can be admitted, nor may any slide compete which has before won an award.

TO READERS ABROAD.—In the case of competitors abroad, the rule as to the date of coupons is relaxed sufficiently to allow them to compete.

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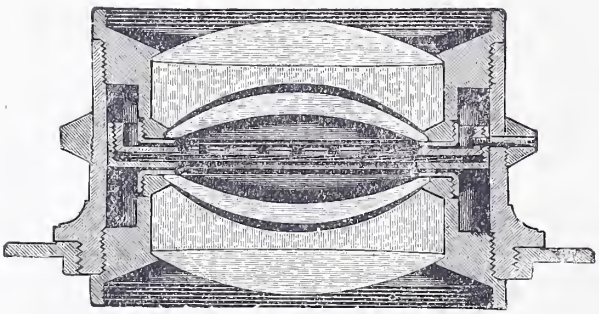
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The Series II. Euryplan of Messrs. Staley.

THE illustration on this page, which shows the f/5.6 or Series II. Euryplan Anastigmat in section, demonstrates once more the point which we raised in an earlier article of this series—to wit, the extraordinary diversity in design of the modern anastigmats, in spite of the uniformity of their aims, and, within limitations, of their achievements. No one, after even the most casual inspection of such a section, could possibly mistake the Euryplan for any other pattern whatever.

The picture shows that this lens is composed of two combinations of similar design, so that its construction is symmetrical. Each of these combinations consists of two glasses, a positive and negative, cemented together on a plane or almost plane surface, and of a third glass, a positive lens, separated from the others by an air space. It is interesting to know that the six lenses thus used are made of only two descriptions of Jena glass, the positive lenses being all of one kind and the negatives of another. It is pointed out by the makers that one consequence of this reduction of the number of kinds of glass employed is that the colour correction is so effected that the lens becomes particularly suitable for orthochromatic and for colour photography. Certainly the Euryplan is very popular for work of this kind, several of the best known autochrome workers employing it, and finding it in every way satisfactory for the purpose.



The Series II. f/5·6 Euryplan.

A matter which is of more importance to the average amateur photographer is the extent to which the single combinations of the Euryplan may be used by themselves, so that the worker may have both a rapid and a long focus lens at his disposal in one single instrument, and this is certainly a point in which this lens scores, inasmuch as when one combination is used by itself there is no need in any way to stop down. In the case of the Series I. Euryplan, which works at f/4.5, the full aperture of the single lens is f/8.5, since its focus is not quite double that of the complete combination, and in this case we are advised to stop down the single combination a little; but even with this lens some workers find that the definition of the single combination with the full aperture is all they require. Certainly it is in the case of the Series II. Euryplan, which works at f/5.6, or when one combination is used by itself, at f/11.2, at which aperture the definition is very fine.

It should be pointed out that there are three series of Euryplans constructed on the general lines of the illustration herewith—the Series I. f/4.5, Series II. f/5.6, and Series III. f/6.8. The Series IV. at f/6.8, known as the "Nulli Secundus," is of different design, and does not enter into consideration in this article.

The Series II. Euryplan, which is the lens most likely to interest the amateur, is a most excellent all-round instrument, which may be used either as a wide angle lens or as one of ordinary type.

Thus, to take an example, the No. 0 lens of this series, with which we are most familiar, has a focal length of 4¾in., and makes an admirable quarter-plate hand camera lens of extreme rapidity. But it is much more. If we stop it down, it will cover a half-plate right up to its corners, and even allow of a little use of the rising front, so that employed in this way it is a most handy wide angle lens. Nor are its uses as a half-plate lens exhausted even then, as its back combination, having a focus of nearly eight inches, also covers a half-plate very serviceably, and is still more effective as an f/11 lens on the quarter-plate, being fast enough so used for most instantaneous work.

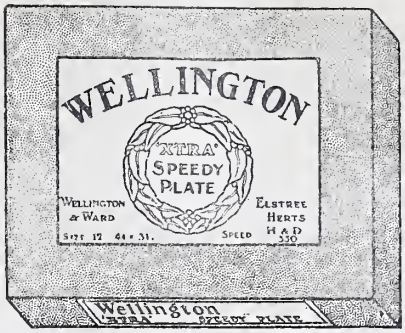
The brilliant image, with exceedingly crisp, well-defined detail that is given by the complete Euryplan at full aperture, makes it a particularly useful lens for reflex and similar work, free from all traces of distortion or flare, and with a flat field, which will allow it to be used for copying or similar work at its full aperture.

Nor can it be said that the advantages of the Euryplan are dearly purchased. The lens is one of a very moderate price, when its capabilities are taken into consideration. The Series II. lens to which we have just referred only costs £4 5s., while a quarter-plate lens of the Series I. type f/4.5, with a focus of 5¼in., can be obtained for £6. The f/6.8 Series III. Euryplan of 4¾in. focus is still cheaper, being listed at £3 5s. These prices may be taken as typical of the others, the lenses being made of foci from 3½in. to 24in.

The aperture of f/5.6 which is possessed by the lenses of Series II. has come to be regarded quite as a standard opening for lenses that are to be used on reflex cameras, and for reflex work the Euryplan is very well fitted.

The Series IV. Euryplan, as already pointed out, is constructed on a different design, and is made to meet the demand for a good lens at a low price. Although not as perfect as the more costly lenses of the other series, it is still a very admirable little instrument, and, at its price, one of remarkable quality.

Full details of the Euryplans and other lenses are contained in a little booklet which can be had for the asking, and which ought to be in the hands of every amateur who is interested in optical excellence. A postcard addressed to Messrs. A. E. Staley and Co., 19, Thavies Inn, London, E.C., will bring it, and to it we must refer those of our readers who want further information.



WELLINGTON

'XTRA SPEEDY PLATE

The fastest of ultra-rapid plates—350 H. & D. (Genuine) - possessing a reputation for sterling quality.

The very fine grain, exceptional latitude, long scale of gradation, absolute freedom from fog, and general ease in manipulation make this negative medium a prime favourite for all work necessitating the quickest of quick exposures under adverse conditions.

Sold by all Dealers at popular prices.

Sole Manufacturers :
Wellington & Ward,
Elstree, Herts.



"The time has come, the Walrus said, to talk of many things."

SINCE writing some illuminating notes on the great expedition to Uganda for the purpose of photographing lions and other beasts by means of cameras dangling from balloons and box kites, it has been my privilege to see some illustrations of the game. As the expedition has not yet started, these pictures show either that this kind of work has already been done and is therefore not such a novelty as was made out, or else that jungle pictures can be produced by these means at home. This latter alternative is not so unlikely as may appear, for during the Boer war I saw a fine set of stereoscopic views of the attack on Spion Kop, the said views having been produced, to save time and trouble, in Germany, and the Boers being represented as wearing Prussian brass helmets of about the Waterloo period.

* * *

In the jungle pictures, men (some of whom are wearing white tam-o-shanters as suitable tropical headgear) are shown hauling up and lugging down a camera suspended by kites. The men are up to their necks in jungle, and it is still a puzzle to me how any suspended camera is going to show anything but animal-less jungle top. In another illustration we see the depths of the jungle by night. A kite, with a dangling camera, is floating in the air. There are some convenient palm trees to which the camera could easily have been hung, but, of course, it would be silly to take kites to Uganda and not use them. Prominent in the view is a flashlight in the very act of going off, and it has thrown some well-executed high lights in Chinese white on the palms and leaves. Right in the centre of the blur caused by the flashlight is a star, with geometrically accurate pointed rays like the star of Bethlehem on a Christmas card, each ray being delicately emphasised by a line of Indian ink. In the foreground a section of jungle has been artistically cleared away to reveal to our delighted eyes the figures of a lion and a lioness, each carefully fitted with a crayon outline, and details *en suite*.

* * *

I am glad to have seen these pictures, because they prove that there is absolutely no bunkum about this great American enterprise. They demonstrate the fact that even before the expedition is ready to start we can be supplied with extraordinary photographs of jungle life, which will be extremely useful, even if only to provide work for black and white artists. What a pity it is that the advantages of kite and flashlight photography were not realised by Dr. Cook in his great North Pole act, or still more so in the case of the travels of the immortal De Rougemont.

* * *

Certain readers have been puzzled by an advertisement picture which represents a youth proudly examining a negative taken in a quarter-plate camera. They cannot understand why the negative is shown as being about the size of a shop window. The explanation is simple, and the artist is perfectly right. He has shown, not the actual size of the plate, but the size it appears to the producer. Even modest photographers (like myself) at times produce a negative which, while quite insignificant judged by the mean standard of an inch measure, seems to be at least equal in area to Hyde Park. We think it great. I produced such a negative myself yesterday. Although made in a hand camera it appeared to me the greatest negative ever produced. For many years past I have dried all my negatives on a particular shelf, and on that shelf with reverent hands I placed it. This morning I got up before breakfast to look at it. Parts of it were still masterly; but the other portions of the film had been devoured, apparently by a cockroach. Now as I do not keep cockroaches, I can only conclude that this one was specially sent to cure me of pride. If so, it has entirely succeeded.

Talking about advertisements, I fearlessly assert that we in this country are a long way behind those in the United States (rumoured to be in America). I religiously read all the advertisements in our own photographic papers, but they seldom move me. Now and then I feebly smile, but I never have that feeling which a good terrier has when someone says "Rats!" But some of the American advertisements are calculated to rouse a china cat to instant action.

* * *

For example, I have just been reading an announcement of a "Co-operative Sample Club." I fail to gather what it is or what it does. Very likely it supplies readers with samples of cameras, plates, papers, and chemicals, and the readers' co-operation consists in trying them. I know there are a good many English photographers who carry on their entire work by means of free samples, but I believe they occasionally find some difficulty in securing an adequate supply. They would welcome a club which overcame this drawback. If they think this American affair is the thing they want I will sell them the address, and they can find out for themselves.

* * *

It appears that one or two procrastinating photographers have not yet leaped to avail themselves of this Co-operative Club, and the advertisement thus addresses them individually and pointedly: "Mr. Dilly-Dally, make up your mind. Send us right away your name and address so that you don't miss this unequalled opportunity of joining us in a splendid money-making proposition. Get on the Band Wagon. Join the procession. Don't remain on the wayside, your hands in your pockets, while the Parade is passing by, marching along with flying colours to Success, Honor, and Profit. We want to help you deliver the message to Garcia, clinch the Customers, and start the Bonanza flowing into your pocket."

* * *

Did you ever read such a trumpet call in the advertisement pages of *Photography and Focus?* I trow not. I don't know what is the message to Garcia, but I am ready and willing to deliver it. I would even dare to mount the "Band Wagon" and chance one in the ribs from a tromhone. I know what a Bonanza is, and I could manage with one or more quite comfortably. Never did I feel so anxious to take my hands out of my pockets and get them into someone else's. That advertisement has almost persuaded me, in spite of reason and commonsense, that one can make a Bonanza out of photography. I realise that it involves climbing on a "Band Wagon" and imparting information to some person or place known as Garcia, and to such lengths I am willing and even anxious to go. But I also realise that to secure information as to further necessary details will involve the expenditure of a postage stamp, and on further consideration I doubt whether the prospect warrants it. What do you think?

THE WALRUS.

SUBSCRIPTIONS.

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PHOTOGRAPHY AND FOCUS.

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Exhibition of the Royal Photographic Society.

The scientific section the most prominent feature of this year: what some of the exhibits teach: a plea for an improved catalogue: the pictorial section and its influence on the Salon.

THE event of the week has been the opening of the fifty-fourth annual exhibition of the Royal Photographic Society at the New Gallery, Regent Street: and a review of the many features of interest which it contains will be found on page 248 *et seq.* of this issue. We propose here only to refer to the impression given by the exhibition as a whole.

To the great majority of photographers it is a picture show. They look at the scientific and technical exhibits if time permits, they wander round the trade section and note the novelties that are there displayed, but their interest centres in the West Room, and if they are asked what they think of the exhibition, their reply has immediate and direct reference to the pictorial exhibits that are gathered together there. We believe that this is not the correct attitude to take up. There are many interesting sides to photography beside that which deals with picture making; and many even of those who specialise in photography as an art follow with a keen and lively pleasure progress on its other sides.

MEMORANDA *for the week.*

To send a postcard to Messrs. Wratten & Wainwright, Ltd., Croydon, Eng., for a free copy of their book, "Lantern Slides." (See page 250.)

The Society Itself Largely to Blame.

The fault is one for which the Royal Photographic Society itself is largely responsible. It has given exclusive, or almost exclusive, care to the pictorial section in the past, and as a natural result the scientific and technical sections have almost atrophied. This year a special effort has been made to encourage these sections, and it has been made on sound and business lines.

The result of all this is that the exhibition contains by far the most interesting collection of scientific work that it has ever had. By scientific work we do not mean that it is necessarily abstruse and caviare to the general. There are some exhibits here which appeal to the specialist alone, but there are a great many which are wider in their interest.

The astronomical photographs are an example. The photographer who looks at the transparency from Greenwich, taken with the great reflecting telescope two feet and a half in diameter, and sees that even with that huge instrument the seventh and eighth satellites of Jupiter are merely tiny dots, which, were they defects, he would not trouble to spot out, learns something of the immensity of space and of the delicacy of the task which confronts the astronomer. The "Zeeman effect" is a thing he may have heard or read about, but has probably failed to form any very clear idea of what it meant. Yet here he has from Professor Zeeman himself the photographs which illustrate it, and show how in some mysterious way the spectrum is altered when the light is under the influence of a powerful magnet. The bearing of this discovery upon human knowledge is one which is still a matter of speculation; but light that has been modified in this or in some kindred manner reaches us across the abysses of space; and the discovery of Prof. Zeeman is likely to be a fundamental one when information as to the condition of other worlds than our own is sought.

The Composition of a Star.

Another exhibit akin to that of Professor Zeeman is that in which Mr. A. Fowler puts side by side the spectrum of titanium oxide and the spectrum of Mira. Professor Secchi classified the stars into four main types. The first were brilliantly white, and their spectra were characterised by strong helium and hydrogen lines. Rigel and Vega are stars of this kind. The second type had spectra crossed by innumerable fine dark lines. Our own sun belongs to this group, of

which the brilliant Arcturus is another member. The third type included red stars with spectra that were banded or fluted, these bands being sharply defined on the edge nearest the violet, diffused towards the red. Such a star is Mira, and the photograph of the spectrum shows this peculiarity very plainly. Set against the photograph of the spectrum of titanium oxide, the way in which the lines in one are paralleled by lines in precisely the same position in the other reveal in an unmistakable way the connection between the two. The stars of this group are more than ordinarily interesting, as they not only possess this curious spectrum, but many also vary from time to time in the intensity of the light they emit.

A Suggestion for Next Year.

We have selected these as examples of exhibits which may be interesting to more than the expert; and others could very easily be gathered from the present collection. There is a matter here in which we think the catalogue might be improved. At present it has evidently been left to each exhibitor to say much or little about his own exhibit, just as he felt inclined. The result is that some of the prints which hardly need it are described almost minutely, and others have nothing more than the mere names. There are experts in the Society who would no doubt be very willing to remedy this, if their co-operation were secured.

The catalogue could then contain a brief sketch of the points of interest in the zoological, or botanical, or spectroscopic exhibits in due proportion, pointing out why each print is exhibited and the nature of the evidence which it yields. It would not increase the bulk of the catalogue much, if it did at all, and would vastly enhance the interest of these sections.

We do not suggest that the secretary should do it, but that each science should be dealt with by one expert. If we go further and say that the exhibits which none of the experts considered were of sufficient interest to show in his own section should be excluded altogether, we should get rid of a good many prints which at present dilute the scientific section without any justification whatever.

Colour Photography.

The same cause that has made the success of the scientific section has made the failure of the colour section at this exhibition. These things must not be left to chance and to the spontaneous action of exhibitors, but must be canvassed. The colour pictures, which are almost entirely Autochromes, with one or two exceptions do not in any way represent the capacity of the process. We know good work is being done, but we see none of it here. The colour prints are even worse. With the exception of one of a tropical garden, we doubt very much if any of these should have been accepted by such a society as the R.P.S. In fact, the only side of this branch of photographic work which has exhibits of interest and importance is represented by some of the technical exhibits for which Messrs. Wratten and Wainwright are in the main responsible. Another year we hope some organised effort will be made—by invitation if it cannot be done otherwise—to ensure the Society showing the progress which has been made in what to the public in general is the most interesting form of camera work.

The Pictorial Collection.

This side of the R.P.S. show is of considerable significance, as it marks the closing of the gap which has hitherto separated the R.P.S. from the Salon. When the same man can serve on the selection committee of both, when prominent supporters of the Salon exhibit at the Royal, and the Salon illustrates its catalogue with little carbon prints, when moreover the pictorial section of the R.P.S. (as is the case this year) is on all fours with the other in character, when the Royal exhibits might have been hung at the Salon, and the Salon at the Royal, without any great change and certainly without any feeling of incongruity, the days of the separation of "Salon" and "Royal" would seem to be numbered. Beyond a modicum of *esprit de corps*, and a good deal of vanity, there is little reason why the Salon should exist as a separate exhibition at all; and the paucity of the shillings of the public will doubtless rub in this fact.

If it is contended that there is no such close resemblance between the two exhibitions, we can only suggest that those who think so should go direct from one to the other. Putting aside the Hills, which enhance to so great a degree the interest of this year's exhibition of the Linked Ring, and remembering that in showing these the Salon is only doing to a slight degree what the R.P.S. did far more fully in 1898, when it exhibited more than twice as many of the works of this "old master," we say, putting these aside, let them compare the two exhibitions with an open mind. Let them ask how many of the pictures at the one would be deemed out of keeping at the other, and then let them ask why two exhibitions should be needed to fill the place of one.

The feature of the two exhibitions this year is *rapprochement*, and in its influence on pictorial photography this fact is significant of much. R. C. B.



Greater Britain Competition.

Two years ago we inaugurated one of the most successful competitions which *Photography* ever held, called from its aims the Greater Britain Competition. It was open to any amateur residing in any part of the British Empire outside Europe, or to British subjects living in any foreign country outside Europe. The entries were very numerous, and much of the work reached a very high standard. The union of *Focus* with *Photography* has, we know, added greatly to the number of our colonial readers, as is shown by the entries in our monthly competitions, and by our correspondence, and so the competition which we announce on page 263 this week should prove to the taste of a very wide circle of readers indeed. We have extended it in this case by dividing it into two classes, beginners' and advanced, so that those

workers who have already taken an award in any competition may still be eligible to compete, while not overpowering the beginners' work. We shall be much obliged if any reader at home or abroad who knows of any amateur eligible to compete in this competition will draw his attention to it.

N.B.—The publishers of *Photography and Focus* offer to post a copy of the paper containing the announcement of the competition to any amateur photographer in the world. Readers with photographic friends beyond Europe are therefore invited to send their names and addresses, marked "Greater Britain Competition," on a postcard, to Messrs. Iliffe and Sons Ltd., 20, Tudor Street, London, E.C.

Mixing the Developer.

One of those curious statements in which a little truth is mixed up with a great deal of error occurs in the current issue of an American contemporary, which may be quoted by way of drawing attention to what is the true state of the case. Developer for use in a tank, it tells us, must be thoroughly mixed:

> "The best way to do this is to first mix and dissolve the ingredients, then add the required amount of water, stir well and let the solution stand for a few minutes. It should then be turned into the tank, or some other receptacle which will hold it, stirred again, then returned to the first receptacle and stirred, and finally it is ready for the tank. The pouring of the solution from one vessel to another mixes the ingredients more thoroughly than many minutes of stirring. Unless one takes this precaution the development will be uneven, owing to stronger parts of it acting on some parts of the plate and weaker parts on others, giving a streaked or mottled appearance to the negative which no after-treatment can eliminate."

The fallacy here lies in supposing that any degree of stirring and mixing of the ingredients can prevent mottling or streaks on the negative. These are due to the composition of the developer in the film being uneven, in consequence, not of imperfect mixing, but of the different action of different parts of the plate upon the developer within its pores. All the stirring and pouring backwards and forwards of the developer before applying it to the plate can have no influence upon this whatever. There is no particular harm in this method of mixing, except that by aerating the solution it will make it discolour and become inefficient a little sooner; and it is wise to mix the developer thoroughly. But to count upon mixing beforehand to prevent mottling, which can only be prevented by rocking, or better still by occassional turning upside down, can only lead to failure and disappointment.

Photographing Halley's Comet.

Halley's comet, which returns to the neighbourhood of the sun about every seventy-five years, is the best known of all these periodical visitors, as its period is so short and it is so conspicuous that it has been noted and recorded, with only two exceptions, on every return since the year 240 B.C. Its appearance in 1066, it is interesting to note, just before the Norman Conquest, is depicted in the Bayeux Tapestry. It should be visible to the eye next spring, and has already been photographed both at Greenwich (on the 9th inst.) and elsewhere. In an article in "The Times" it is pointed out that, thanks to the camera, it has this time been detected far sooner than on any previous visit. The preceding time—in 1835 for example—it was first seen 102 days before reaching its perihelion, whereas this time it was discovered 220 days before perihelion. It is not the most brilliant of comets, but is much the most interesting, and should be conspicuous in the heavens in May of next year. To astronomers a calculation of the precise period of its return presents great difficulty, as it is very powerfully affected by both Jupiter and Saturn.

Special Autumn and Lantern Issue—Next Week.

A WEEK to-day will be published our special issue, which will contain a great many articles of exceptional interest, extra pages with extra illustrations printed in colour on "art" paper. Below we give a list of some of the principal contents.

COLLODION EMULSION SLIDES. BY R. CHILD BAYLEY.

An almost forgotten process by which many of the finest slides ever made were produced. Full working details are given for those who like to try it.

LANTERN SLIDES WITH WARM TONES. BY REV. H. O. FENTON.

One of the most successful competitors in the "Photography and Focus" slide competitions describes how he gets warm tones by means of development only.

LANTERN SLIDES BY REDUCTION. BY E. HUGHES.

The writer illustrates his own apparatus for slide making, and gives a full account of its use. He also illustrates an extraordinarily simple and effective way of illuminating small negatives in slide making.

SLIDE MAKING WITH AN ENLARGING LANTERN. BY E. H. IMMINGHAM.

Describes how an ordinary enlarging lantern with incandescent gas can best be utilised for the purpose.

MOUNTING LANTERN SLIDES. BY T. ORTON MURRAY.

Dealing with the best way of masking a slide to suit the subject, and how to mount and bind it to stand wear and rough usage.

HOW I MADE A FIXED FOCUS LANTERN SLIDE CAMERA. BY "SCOT."

An illustrated article sufficiently described by its title.

THE GOLD TONING OF LANTERN SLIDES. BY W. WORKMAN.

Giving formulæ and methods largely used by professional slide makers.

The leading article will deal with judging density in lantern slides, and the issue as a whole will form a complete treatise on slide making for the beginner and the expert.

PRICE ONE PENNY. ORDER EARLY.

The Royal Photographic Society's Exhibition.

THE fifty-fourth annual exhibition of the Royal Photographic Society opened on Wednesday last, with a private view and conversazione, at the New Gallery, Regent Street, London, W., and will remain open until October 30th, from 10 a.m. to 6 p.m. It will also be open on Monday, Thursday, and Saturday evenings from 7 to 10, when lantern lectures will be given. The programme of these will be found in this issue on page 250.

The Pictorial Section.

The pictorial section in the West Room has this year been kept down to 214 exhibits, but, owing to the almost complete absence of small work, to the velarium which comes down and hides much of the upper part of the walls, and to the liberal spacing which the hanging committee have very judiciously bestowed, there is no feeling of scarcity or emptiness. In fact, the general impression on entering the gallery is a very favourable one. The material has been well disposed, there are no pictures that cannot be seen comfortably and well, and few that suffer from their neighbours.

A fine flower study, "Peonies" (No. 5), by Mr. M. A. Smart, arrests the attention as soon as a start to look at the pictures seriatim is made. Mr. Moffat's portrait (No. 1) is strong, but the oil process has given a gritty and heavy result, which we could wish absent. Another weakness of the method, unevenness of tone, characterises the otherwise soft and pleasant "Ancient Waterway" (No. 3) of Mr. J. C. Nunn. Mr. Wastell's "Ripples and Spray" (No. 8) is an excellent example of what the process can do in practical hands and is altogether pleasing. A bold and effective interior, "The Pillars of St. Mark" (No. 13), by Mr. John M. Knap, and a quite characteristically southern piece by Dr. Boon, which he calls "In my Neighbour's Pergola" (No. 11), should also be noted in this first panel.

One of the weirdest landscapes in the room is "The Viaduct" (No. 14), by Mr. Harry Wild, whose work both here and at the Salon this year marks him out as one whose artistic development is worth watching. "The Viaduct" has as strange an atmosphere as "Montsalvat" at the other show, and is altogether beyond much of the work that hangs with it. The hanging committee's classification has resulted in a number of pictures that have the same fault being hung together, and extreme heaviness is the prevailing defect at this end of the gallery. It interferes with Mr. George W. Miller's otherwise fine "Wood Magic" (No. 25), with Mr. Dan Dunlop's "Thames Tug" (No. 24), and with others. "St. James Street, Lincoln" (No. 26), by Mr. Bertram Cox, is, however, free from this, and a very agreeable and sunny picture. We are glad to note a couple of pictures this year from Mr. Alexander Keighley, quite in his old style. "The Hillside Harvest" (No. 33) is too nebulous and undecided to be a complete success, but in "The Eastern Gate" (No. 160) he is seen at his best. For a strong and successful sunshine effect, "Summer" (No. 41), by Mr. E. T. Holding, is very hard to beat; while not very far away is the dainty and well arranged "Her Great Grandmamma" (No. 44) by Mr. T. Lee Syms.

One looks to the president, Mr. J. C. S. Mummery, for some of the most interesting of the work of the year, but his solitary contribution on this occasion, "The Barn Door" (No. 113), will not rank among the best of his pictures; in fact, one is driven to the conclusion that Mr. Mummery's best exhibit, like Wren's monument, is the exhibition itself, which presents throughout evidence of successful administration of no slight kind. Amongst the portraits are several by Furley Lewis, which are certainly finer than his solitary representative at the Salon. The genial cynicism of Mr. Horace Mummery, for example, has been very cleverly caught in No. 91, and "Childe Pocock, Esq., A.R.A." (No. 90), is another masterly bit of photographic portraiture.

We noted for comment a good many of the pictures on the main or west wall, but pressure upon our space compels us to omit all but a very few of the most striking. Amongst these we must include "Ancient and Modern" (No. 117), a quaint sea piece, apparently in Eastern waters, by Dr. G. P. Jordan; "After Rain" (No. 128), an extraordinarily faithful rendering of wet pavement; and "Burgtor Rothenburg" (No. 136), by Mr. John H. Gear, quite one of the best of those effects of sunshine on ancient architecture which appeal to this skilful worker. Mr. and Mrs. Bracewell send a portrait (No. 140), which is quiet and dignified in treatment; and Mr. Frank H. Read continues his Salon successes with "The Cigarette" (No. 145). A fine snow scene by Mr. Thomas Wright (No. 154) forms the centre piece at the top of the gallery, and near it hang "Bogey" (No. 156), by Mrs. Helen M. Parsons, an oil print of remarkable quality of a terrier; "Boy with Apple" (No. 161), a characteristic portrait by Mrs. Barton; and "Nature's Garden" (No. 158), by James Gale—all prints worth careful study.

"The Late Lord Robertson" (No 177) reveals Mr. William Crooke at his very best. It is a portrait of remarkable dignity and power, but the other pictures by Mr. Crooke, which hang in the South Room, should also be seen to get a good idea of this exhibitor's work. A very delightful portrait group by Mr. Richard Speaight (No. 178) should be noted, as well as Mr. Frederick Hollyer's "George Meredith" (No. 180), one of his most successful portraits.

As usual, the wall between the two doors contains a number of attempts, we dare not call them more, in colour. At least, they serve to show the limitations of gum and oil in this direction, and there is hardly one that we would not prefer to see in monochrome. The nude by Miss Schönberg, "Dreaming" (No. 210), which occupies a prominent place here, is more successful than such works usually are; and "Verdure," by M. Misonne (No. 201), and "At the Horse Fair" (No. 186), by Dr. Evershed, should not be missed. But there is also a great deal which we have been compelled to pass over in silence, to which, if opportunity offer, we may recur.

The Scientific and Technical Section.

The chief interest of the exhibition this year lies in the section which illustrates the scientific applications of photography, and an organised effort seems to have been made for the first time to ensure these being properly represented.

The result has been a notable success. In almost every branch of science the camera is extensively used, and many of its triumphs are to be seen here by most of the visitors, no doubt, for the first time.

The natural history photographs are, as always, the most numerous, the mere numbers in the catalogue giving but a feeble idea of the actual total of prints on the walls, as one number often stands for a series of a dozen or more. Some of these series are of considerable educational value—a value which is not always proportional to the difficulty of getting the photographs. "The Arctic Tern" (No. 303) by Mr. W. Bickerton gives a good idea of the habits of this sea swallow, and the "Metamorphosis of the Dragon Fly" (No. 330) by Dr. J. Gray Duncanson, and the "Life History of the Plaice" (No. 466) by Dr. Francis Ward are other examples of systematic treatment of the subject of decided scientific value. There is so much in this direction that is of interest that we cannot do more than mention one or two examples as typical of the rest. Mr. Douglas English has a most delightful picture of a "Squirrel" (No. 494), as well as a series of insect photographs characterised by the beautiful technique to which he has accustomed us. Mr. Oliver G. Pike, Mr. J. A. Lovegrove, Mr. R. H. Yapp, and Mr. C. J. King are amongst the others who have exhibits of a zoological character.

In the direction of astronomical photography there is a great deal to be noticed. The Astronomer Royal, Dr. Max Wolf, and Rev. A. L. Cortie all show photographs of the Comet C 1908 (Morehouse), which between them give an excellent idea of the extraordinary appearances presented by the tail of that body at different times. The two spectra of the star Mira Ceti and of titanium oxide (No. 389) sent by Mr. A. Fowler show very well how closely the absorption flutings in the one figure in the other. Dr. Mees and Mr. E. Kenneth Hunter exhibit a photograph of the extreme red end of the solar spectrum on panchromatic plates (No. 391), and Prof. Kayser has three frames of spectrographs on a large scale.

Paynetype is the title of a new process, the invention of Mr. Arthur Payne, and the subject of a very interesting exhibit. The process, which is given in outline elsewhere in this issue, is for photographing direct upon metal for process work, either in half-tone or line, relief or intaglio, and one of the prints shown is a portrait taken from life straight on the metal, the exposure necessary being only ten seconds at f/18, a square stop and a 65 line screen being used.

Colour photography is not at all adequately shown this year. While very fine work on autochromes is being done, to our knowledge, the Society seems to have got hold of very little of it. One or two of the landscapes are noteworthy—particularly one by Mr. J. C. S. Warburg, and Mr. Ellis Kelsey's snap-shot of a train, taken with 1-25th second at f/2.5 with a Grün lens, is a testimony to the definition which could be got with that instrument, as well as to the exhibitor's skill.

The Professional Section.

The professional photographs which occupy the South Room present very much the average both of style and quality which we have come to expect in this gallery. Crooke impresses, as ever, with a collection of eleven, of which several might well have hung in the pictorial section proper, where they would more than hold their own with such portraits as are to be found there. A less conspicuous but very charming set of portraits represents the careful, forceful work of Mr. Furley Lewis; while Mr. Hollyer sends half a dozen platinotype copies of Holbein drawings from the Windsor Castle collection.

A novelty here is a set of portraits by various professional photographers, which have been printed by the oil process by Mr. F. C. Tilney. Commercially, there would appear to be an opening for collaboration of this kind, a photographer making the negative, and an "oiler" making the prints; though how far such co-operation is artistically defensible is another matter. The outcome of the combined labours is of very uneven merit, and one wonders in looking at these prints how far, in the words of our own inimitable "Walrus," Mr. Tilney has been handicapped by his colleagues. The Mattype Co., of New Bond Street, exhibits a number of "Mattype" portraits in this gallery; and Mr. Harold Moore shows a series of very effective "at home" portraits, taken in ordinary rooms, and printed—we quote the catalogue—"in exhibitor's own process," whatever that may be. A fine set of reproductions of works of art, including tapestry, wrought iron, miniatures, as well as larger paintings, is shown by Mr. Walter L. Bourke; while Mr. F. A. Swaine sends a large number of portraits typical of the best high-class modern professional work.

Passing from the South to the North Room, we once more find the Autotype Co. very largely in evidence with prints both in carbon and in oil. The Leto-Photo Materials Co. has an imposing exhibit of prints on Seltona and its other products, including examples made with Edwards's XL plates, of which the business has recently been acquired by the Leto Company. The Paget Prize Plate Co. shows a collection of prints on the phosphate paper, which that firm has recently introduced, illustrating very effectively the variety of tones which can be obtained on it by development only. The Kodak exhibit, including as it does prints on Kodak Bromide and Royal Bromide, Velox Gaslight, Kodak Velvet and Self-toning papers, deserves very careful attention by amateurs who want to know what those popular printing materials will do; and should be scrutinised closely by users of them to learn what quality is to be got out of such perfect products.

The ozobrome process is well illustrated by the Ozobrome Company's exhibit in this gallery; and ozobromes on wood as well as oil ozobromes are included. Messrs. Wratten and Wainwright show a series of prints illustrating the work that can be done, both in colour and in monochrome, by means of the Wratten Panchromatic plates. Included in this exhibit are trichromatic prints from screen negatives made direct on Process Panchromatic plates.

The Trade Exhibits.

The trade exhibits in the Fountain Court present much the same appearance as ever, although most of the stands contain novelties in one shape or another, which have been introduced since the last exhibition. Messrs. Wellington and Ward are represented by an admirable collection of pictures and negatives, on Wellington products, displayed in the little temple which forms so well-known a landmark in this gallery. At Messrs. J. H. Dallmeyer's stand can be seen the Dallmeyer telephoto calculator recently reviewed in these columns, as well as the "Autotimo" scales, naturalists' and correspondents' cameras, portrait lenses, etc.

Colour photographers will find a great deal to interest them in the exhibit of Messrs. Sanger Shepherd and Co., where a one exposure camera for lantern slide plates, quick change repeating backs, and a grating spectroscopic camera figure, along with a number of light filters, dark room lamps, etc. The graduated light filters made by this firm, giving a fuller exposure to the foreground than to the sky, should receive attention. Messrs. O. Sichel and Co. show dry mounting, and Messrs. Goerz a collection of the lenses which have made their name world-famous, as well as the Goerz Folding Reflex, the Goerz Pocket Tenax, and other recent models.

The large stand of Messrs. Kodak, Ltd., is noteworthy in several respects. The new panoramic camera "The Cirkut" is here, and in the North Room close by can be seen a number of examples of the work which it will do. The No. 3 Brownie, the No. 3a Folding Brownie, the No. 4a Speed Kodak, the No. 1a Premoette, and the No. 1a Premo Junior cameras, which have already been reviewed in our columns, are to be seen here, as well as a large number of prints and enlargements showing what can be done with Kodak apparatus and materials. A feature of the Kodak stand, as that of the Platinotype Co. close by, is that actual demonstrations of the processes exhibited will be given from time to time.

Examples of work done with the many standard products which bear the world-famous name of "Ilford" form the

features of the exhibit of Messrs. Ilford, Ltd. As widely known in their own line as are Ilford good in theirs, and as reliable, are the chemical products of Messrs. Johnson and Sons, Ltd., which are to be seen close by. Another stand of great interest is that of Messrs. Wratten and Wainwright, where the light filters on view include one which transmits ultra-violet light only, and another for the isolation of the green ray in the light from a mercury vapour lamp. An ingenious arrangement on this stand allows any selected filter to be brought in front of a spectrum thrown upon ground glass, so that a visitor can see exactly what the effect of the screen is upon the spectrum itself. This forms one of the most valuable and instructive exhibits in the whole exhibition.

Tabloids of every photographic kind figure in the stand of Messrs. Burroughs, Wellcome and Co., and a series of prints, slides, and negatives obtained with tabloid products testifies to their fitness for the purposes for which each is produced. The apparatus shown by Messrs. Adams and Co. includes their well-known Vesta and Idento cameras. Film pack adapters, light tripods, and other apparatus for amateur workers are to be found here. The Thames Colour Plate Co.'s exhibit, although included in this section of the catalogue, will be found on the balcony above, where also are a selection of prints by Japanese photographers, which figured some years ago in the exhibition of the Japanese Photographic Society, and have been lent by J. Orange, Esq.

Lecture Arrangements.

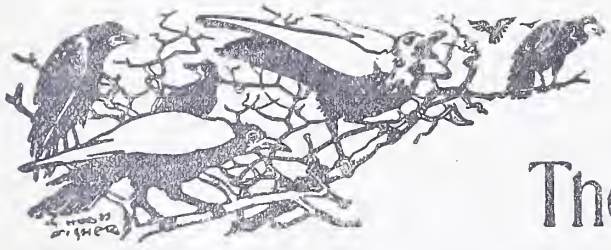
Monday, September 27th—"A Visit to a Marine Biological Station," by Francis Ward, M.D. Thursday, September 30th—"The Romance and Humour of Invention," by A. H. Dunning, F.R.G.S., F.R.P.S. Saturday, October 2nd—"Modern Ideas about the Sun," by T. F. Connolly, B.Sc. Monday, October 4th—"San Marino, the Pigmy Republic," by the Rev. T. T. Norgate, F.R.G.S., F.R.Hist.Soc. Thursday, October 7th—"Saints, Benedictines, Goths, and Vandals," by E. W. Harvey Piper, Hon. M.S.A. Saturday, October 9th—"The Photography of Sport," by Adolphe Abrahams, B.A., L.R.C.P., M.R.C.S. Monday, October 11th—"Holy Days and Fête Days in Spain," by R. Falconer Jameson. Thursday, October 14th—"Pictures from Portugal," by George E. Thompson, F.R.P.S. Saturday, October 16th—"London through the Eyes of Gossip Pepys," by A. H. Blake, M.A. Monday, October 18th—"Wild Birds and their Ways" (Second Series), by W. Bickerton, F.Z.S., M.B.O.U. Thursday, October 21st—"The Home Life of some familiar Wild Birds," by W. Farren. Saturday, October 23rd—"The Romance of Plant Life," by F. Martin-Duncan, F.R.P.S. Monday, October 25th—"A Trip round the World, *viâ* Ceylon, through Australia and Canada," by C. J. Marshall, A.R.I.B.A. Thursday, October 28th—"The Catacombs of Rome, and the Early Christian Period," by S. J. Beckett, F.R.P.S. Saturday, October 30th—"Westminster Abbey," by S. G. Kimber, F.R.P.S.

Lantern Slides. A Book on their Production.

ONE of the notable departures made recently by Messrs. Wratten and Wainwright has been the publication of a series of books and booklets on photographic processes, appealing directly to photographers by their sound practical nature. The series on "Real Orthochromatism," "Screens and Safe Lights," "Stand Development," and "The Photography of Coloured Objects," has now been supplemented by one on "Lantern Slides."

This book, within the space of about thirty pages, describes clearly and adequately how warm tones are to be obtained by simple development, how it comes about that the colour of the picture can be controlled in development, and how lantern slides may be systematically exposed to give uniform results with certainty. The work is as lucid and to the point as its predecessors, and betrays the fact that it has the same authorship. It can be obtained free of charge for the mere asking; and we are quite sure that every reader of *Photography and Focus* who is interested in this side of his hobby will drop a postcard to Messrs. Wratten and Wainwright, Ltd., Croydon, for a copy.

There is one point in connection with slide making which has been the subject of some controversy. It was first laid down in *Photography* three or four years ago that to secure regularity of tone, it was absolutely essential that the time of development should be definitely fixed; the same exposure and the same developer will give different colours according to the time of development, but the gradation will also be different. Messrs. Wratten in their book state, "The time of development for a given constitution of the developer should be regarded as a fixed quantity; if a different tone is required, the developer must be varied as well as the exposure." An observation which is undoubtedly correct.



The Week's Meetings.

MONDAY, SEPTEMBER 27TH.

Queen's Park A.P.A. Stirling.
Glasgow S.P.A. Callander.
South London P.S. Monthly Competition (Lantern Slides).
Royal (Exhibition). A Visit to a Marine Biological Station. Dr. Francis Ward.

TUESDAY, SEPTEMBER 28TH.

Wallington C.C. "Short Papers," Members.
Kinning Park C.C. Club Meeting.
Nelson P.S. Lantern Slide Competition.
Hackney P.S. Affiliation Prints.
Nelson C.C. Lantern Lecturettes.
Manchester A.P.S. "Lisbon." F. Eastwood.
Fernhead W.G.P.S. "Hand Camera and its Uses." J. Hogben.

WEDNESDAY, SEPTEMBER 29TH.

Everton C.C. Members' Evening.

THURSDAY, SEPTEMBER 30TH.

Walthamstow P.S. Annual Exhibition.

THURSDAY, SEPTEMBER 30TH (*continued*).

Watford C.C. Competition.
Handsworth P.S. "Movements of a Camera." Dr. Foster.
Royal (Exhibition). "Romance and Humour of Invention." A. H. Dunning.
Aston P.S. "Phosphate Printing Paper." J. C. Taylor.

SATURDAY, OCTOBER 2ND.

Kinning Park C.C. Langbank.
Shettlestone & D.C.C. Daldowie.
South London P.S. Eltham.
Royal (Exhibition). "Modern Ideas about the Sun." J. F. Connolly.
Bowes Park & D.P.S. Hainault Forest.

MONDAY, OCTOBER 4TH.

Kinning Park C.C. Committee Meeting.
South London P.S. "Thunderstorms and a Camera." H. Wilkie.
Royal (Exhibition). "San Marino, the Pigmy Republic." Rev. T. T. Norgate.
Bowes Park & D.P.S. Conversazione.
Bradford P.S. Exhibition.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

SNAP-SHOTS

THE THORNTON-PICKARD annual competition, in which £100 is offered in prizes, closes on October 1st.

AN ATTRACTIVE LITTLE SHOWCARD, by Hassell, representing a polar scene, has been issued by Messrs. Elliott and Sons, Ltd., in connection with the super-speed plate.

THE NETHER EDGE and District Photographic Society held an exhibition and social evening on the 16th inst. A hundred and seventy prints and two hundred lantern slides were shown. The colour photographs attracted much attention.

BIRD PHOTOGRAPHS. Lecturing before the London and Provincial Ornithological Society, Mr. Richard Kearton said that wild birds could be studied quite easily near London, and that many of his bird pictures had been obtained within twenty miles of Charing Cross.

THE CONGRESS OF PHOTOGRAPHERS was the title given to a gathering held at the Earl's Court Exhibition on the 18th inst. It was not connected with any recognised photographic body, and, as far as we have been able to learn, had no outcome, except to augment slightly the takings on that day.

THE HACKNEY PHOTOGRAPHIC SOCIETY holds its exhibition from November 10th to 13th, at the King's Hall, Hackney Baths, entries closing October 12th. Particulars and entry forms can be had on application to the honorary secretary, Mr. Walter Selfe, 24, Pembury Road, Clapton, London, N.E.

PHOTOGRAPHIC CLASSES. Mr. Edgar Senior, who is known both as a very competent instructor in photography as well as a careful experimenter, conducts classes both at the Battersea Polytechnic, Battersea Park Road, London, S.W., and at the Woolwich Polytechnic. The Battersea classes are held on Tuesday and Thursday evenings, and those at Woolwich on Wednesdays. Particulars as to fees, hours, etc., can be obtained on application to the polytechnic concerned.

A PHOTOMECHANICAL PROCESS has been worked out by Mr. A. Payne, in which the printing plates are made direct in the camera. The metal plate is first coated with a resist of collodion or similar nature, and then with a gelatine emulsion. After exposure and development, the plate may be fixed in hypo, or, if a positive is required, reversed with potassium permanganate and sulphuric acid, exposed, redeveloped, fixed, and, if necessary, cleared with hypo and ferrocyanide. The plate is then immersed in bichromate solution, and is then developed in hot water, like a carbon print. The collodion is then removed from the bare parts by a solvent, leaving the plate ready to be etched.

ACCIDENT AT MESSRS. ILLINGWORTHS. On the 18th inst., a lad named Peters fell from a window at Messrs. Illingworth's factory at Willesden, and was killed instantly.

THE GAMAGE PHOTOGRAPHIC COMPETITION for photographs made with G.B. brand plates, printing papers, and chemicals closes on September 30th. Particulars can be obtained post free from Messrs. A. W. Gamage, Ltd., Holborn, London, E.C.

THE EDINBURGH AND MID-LOTHIANS Industrial Exhibition, with a number of photographic classes, is to be held on October 13th to 23rd. Particulars can be obtained on application to the secretary, Mr. A. T. Hutchinson, 16, George Street, Edinburgh.

THE AFFILIATED SOCIETIES' annual gathering was to take place at the exhibition of the Royal Photographic Society, the New Gallery, Regent Street, London, W., on Friday, Sept. 24th, at 7 p.m. The 1909 Affiliation Competition slides were to be shown during the evening.

A FLASHLIGHT HINT. To prevent smoke in flashlight work from becoming a nuisance, says "The Technical World," a large flat pad of damp wool lint should be suspended above the point where the flash is to take place. This may be done by tacking the lint to the underside of a board supported on legs. After the flash, much of the products of combustion will be absorbed by the wool.

"THE DISCORDS that massed brass bands can bring forth under really competent direction, the horrors of the smells of motor cars and soap manufactories, seem trifling when compared with the silent agonies that an average modern picture show holds in reserve for any man or woman with a delicate and well-trained power of sight." ("The Star" on the Photographic Salon.)

A PRICE LIST of papers and postcards of P.O.P., gaslight, and bromide kinds, and of a special bromide paper for enlarging, has been issued by Messrs. Backhouse and Coppock, of the Challenge Photographic Works, Macclesfield. The firm also issue sensitised cards of all their ordinary brands with Christmas greetings on them, and if ordered in quantities will imprint the name of the photographer free thereon.

A CAMERA COMBINE. The "Manchester Guardian" reports that arrangements have now been completed for the formation of a combination of three companies manufacturing cameras, etc., the three being the Ernemann Co., Hüttig, and Wünsche. The businesses themselves are older, but the companies which are now amalgamating were formed in 1897, 1898, and 1899 respectively, the capital of each being 1,000,000 marks. Owing to price-cutting, the Hüttig and Wünsche Companies have not paid any dividends recently, and the last Ernemann distribution was at the rate of 3%. It is expected that considerable economies will be effected both in the cost of production and of selling.

THE WISHAW PHOTOGRAPHIC ASSOCIATION holds its exhibition from December 31st to January 8th, at the Public School, Wishaw, entries closing December 18th. Entry forms and full particulars can be obtained from the secretary, Mr. R. Telfer, 138, Glasgow Road, Wishaw, N.B.

PHOTOGRAPHIC CLASSES at the Blackheath Road Evening Centre are held on Monday and Friday evenings, Mr. F. W. Bannister being the lecturer. The fee for the entire course, September to June, is 2s. 6d. Particulars can be obtained on application to the secretary at the centre.

POSTCARDS WITH CHRISTMAS CARD designs. The Birmingham Photographic Co., Ltd., of Criterion Works, Stechford, is issuing the various postcards which it makes with some effective Christmas card designs upon them. A number of these have been submitted to us, and we have no doubt that they will prove very popular at the approaching season. The Christmas cards will be supplied, as before, at the same prices as the plain cards.

PHOTOGRAPHY AND FIRE DAMP in Mines. At the Institution of Mining Engineers, Messrs. E. Bessell Whalley and W. M. Tweedie read a paper on the detection of fire damp in mines, in which they pointed out that photography provided a practicable and accurate means of recording the indications and conditions to be observed in miners' safety lamps. It was claimed that Mr. Tweedie was the first to succeed in producing a photograph of a gas cap.

PHOTOGRAPHIC CLASSES, under the direction of Mr. John H. Gear, are held every winter at the Cripplegate Institute, Golden Lane, Cripplegate, London, E.C. These classes, which are open to amateurs without restriction, cover all branches of ordinary photography, including oil printing and Autochrome work. Ninety per cent. of the students this year were successful at the various examinations for which they entered, a fine testimonial to Mr. Gear's ability as a teacher. The classes are held on Wednesday evenings, and the fee for the course is 10s. 6d. Particulars can be obtained on application to the Institute.

ELECTRIC SPLASHES on photographic plates, shown by Mr. A. W. Porter, attracted much attention at the British Association. They were obtained by holding a point electrode (as a rule the negative one) over the sensitised plate, the other electrode being behind the plate. The appearance of the palm-leaf patterns and ramifications changes entirely with the nature of the gas medium (air, oxygen, nitrogen, hydrogen, ammonia, carbon dioxide, etc.), and with the gas pressure. In his recent experiments Mr. Porter used a triangular sheet as an electrode. When this triangle was negative (in air), three palm-leaves were seen, the stalks of which were at right angles to the sides of the triangle; when positive, rootlets started from the corners of the triangle.

Some Curious Lenses.

By "Historicus." Special to "Photography and Focus."

The problem of making a photographic lens to give good definition over a large plate at a large aperture has had many curious solutions. Those described below are not mere "freaks," but have at one time or another come into actual and in some cases into extensive use, though all now are obsolete.

THERE have been some strange lenses designed for photographic purposes at one time or another, and a great deal of ingenuity, which ultimately proved to be misdirected, expended upon them. They are interesting now simply as showing how the early workers attempted to deal with the problem of making a satisfactory lens for photographic purposes.

One of the first lenses to be used for photography was of the simple achromatic type, not very different in construction from the single lens of to-day. It consisted of a double convex lens cemented to a double concave one, the convex lens being in front of the other (that is to say, the further from the focussing screen). Such a lens was ready to hand in the front or object glass of a telescope. It suffered amongst other things from a curved field, the edges of the picture coming to a focus nearer to the front of the camera than the centre did. The early photographers, making their negatives on sensitised paper, got over this by curving the paper, enclosing it between two clock glasses (see fig. 1) to give it the required saucer-like shape.

A very early improvement was to turn the lens round, so that the convex glass was next the plate, and to put in front of it, and some little distance away, a stop. This stop was often a little metal cap, like the lid of a pill box, and the lens was provided with several of these, fitting over each other, the largest being innermost, so that a lens was stopped down by putting another cap on it (fig. 2). Lenses of this type are still sometimes met with in pawnbrokers' shops, and if of long focus are worth buying for two or three shillings, as they do not make bad lenses for portraiture on small plates.

A most extraordinary lens, as far as appearance goes, was that known as Sutton's Water Lens. It was invented by Thomas Sutton in 1859, and was designed for use in a special form of panoramic camera taking curved plates. This lens consisted of a very thick glass shell, its inner and outer surfaces being concentric (fig. 3). The hollow in the middle was filled with water, and the stop was placed between the two halves of the shell.

This stop was a highly ingenious affair, and was known as the "butterfly stop." It was designed so that the illumination at the extreme edges of the field should not be very much less than it was in the centre. To accomplish this, the main stop had an elliptical opening, with its major axis horizontal, and was provided with two wings set at an angle to it. The opening in the wings was such as to make the opening of the stop, viewed from the centre of the plate, a circular one.

Perhaps the illustration which is given below will make this clearer than can be done by verbal description, and if the reader still does not grasp the principle and is anxious to do so, he will see it at a glance if he makes a model by cutting out a couple of wings of cardboard and attaching them to a cardboard stop, remembering to make the stop opening an oval one with its shortest dimension vertical. The wings

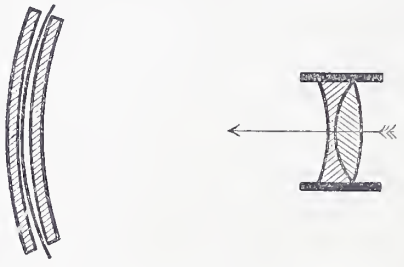


Fig. 1.—Early single lens with th sensitive paper curved by being pressed between clock glasses.

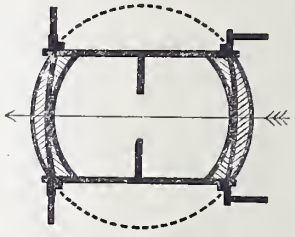


Fig. 4.—Harrison's Globe lens, the outer surfaces forming part of the same sphere.

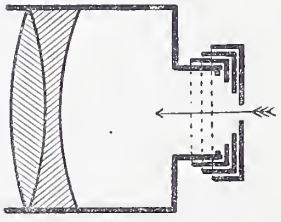


Fig. 2.—A single lens with stops in the form of lens caps.

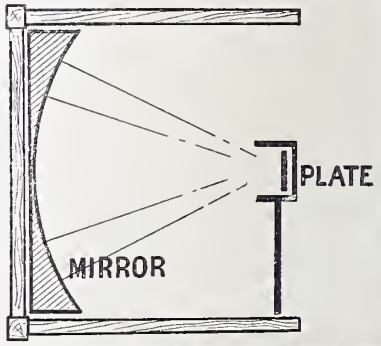


Fig. 5 — Camera with a mirror instead of a lens.

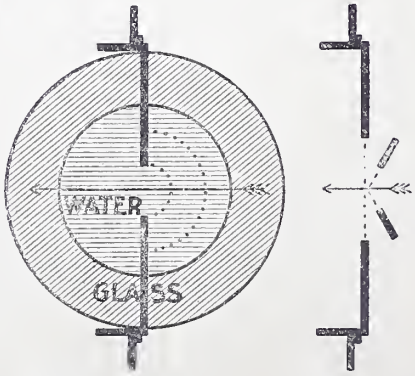


Fig. 3.—Vertical section. Plan of butterfly stop. Sutton's panoramic water lens for a curved plate.

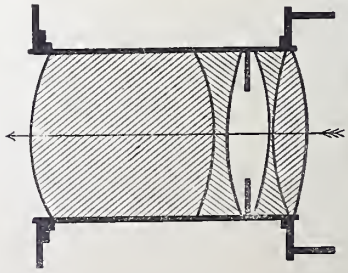


Fig. 6.—Steinheil's Antiplanat lens with thick back combination.

do not allow more light to get to the edges of the plate, but they cut off some of the light which otherwise would get to the centre, and so tend to equalise matters.

Other devices for panoramic photography have made Sutton's lens and camera obsolete, but a print in the writer's possession shows that it gave excellent definition over the very wide angle it included, and that the "butterfly stop" was effective in securing that the illumination at the extreme edges of the curved plate was practically equal in intensity to that at the centre.

Another curious lens which has long been obsolete was the Globe lens, made by Harrison, of New York. Externally, this resembled Sutton's lens in one respect—its two outer surfaces formed parts of the same sphere (fig. 4). Internally, however, it resembled a modern rapid rectilinear, and if its maker had abandoned the Globe idea, which had no particular optical justification, and had given his lenses gentler curves, it could very easily have been made much more efficient. As it was, the Globe lens had a very curved field, and frequently suffered from flare.

Although the arrangement that is shown in section in fig. 5 is not a lens at all, it may perhaps be dealt with under the present title, as it is at any rate a substitute for a lens. This was known as the mirror camera, and was used for photography by some of the early Daguerreotypists.

The mirror camera, instead of being provided with a lens, was furnished with a metallic, concave mirror of large diameter, which formed an image on a small plate placed in the opening of the camera, between the mirror and the sitter.

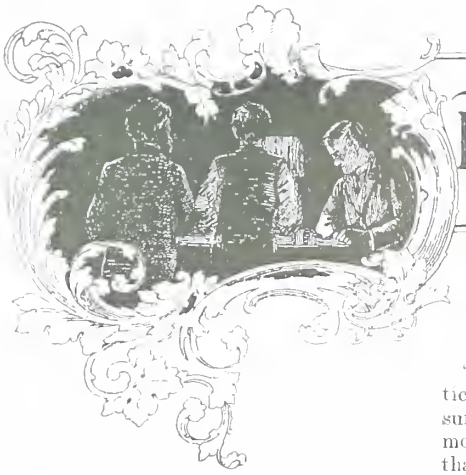
The idea of the mirror was to get as much light as possible for the very slow process then used, and the principle of the mirror camera was very similar to that of a reflecting telescope. One advantage which a mirror possesses over a lens is that there is no need to make any correction for achromatism. With the mirror, rays of all colours come to a focus at the same distance from the curved surface. A mirror-camera, it may be noted, is still virtually used, when celestial photography is done, as it often is, with a reflecting telescope.

The Antiplanet lens, of Steinheil, introduced about a quarter of a century ago, was another curious looking instrument, being notable for the extraordinary thickness of the back combination (fig. 6). The lens was certainly an advance in the direction of the anastigmat, but it, too, has been rendered obsolete by successors, which not only attained its object more simply, but more completely.

These notes by no means exhaust the list of "curious lenses" that have been designed at one time or another for photographic purposes, but may be taken as representing a few types which constitute very wide departures from those at present in use for photography. Perhaps on some later occasion a selection of some even more extraordinary lenses may, with the editor's permission, be given.



PORTRAIT STUDY BY F. W. MEMORY



DARK ROOM DIALOGUES

THE dialogue which formed the subject of our last report took place, as our readers may recollect, in Oliver's dark room, where that worthy had just finished developing a bromide enlargement, and was washing it under the tap, preparatory to fixing it.

"I see you adopt that excellent practice of washing before fixing," said the sunburnt man, "and do not carry more developer into the hypo solution than you can help."

"I have done so ever since I spoilt a fine enlargement with a large brown stain, that made its appearance in the fixer. I was advised that it was due to developer being left in the paper, oxidising, and so staining the picture."

"I have had brown stains make their appearance when I began to wash the prints after fixing; do you think that they were due to the same cause?" enquired Lawson.

"I don't doubt it," was the reply. "I make it a rule to wash an enlargement under the tap on both sides for a full minute, as you have just seen, before putting it into the hypo, and then get no stain."

"Can't you guarantee yourself against staining by using an acid fixing bath, just as you do with negatives?" enquired Lawson.



THE WOOD IN ALL ITS GLORY. BY JOSEPH CLEGG.

"Unfortunately, with amidol an acid fixer, so we are told, is better avoided. I always use plain hypo, as you see I am doing to-day."

"I don't see why an acid fixing bath should not answer just as well with amidol as with any other developer used for bromide work," remarked Lawson.

"There is an excellent reason," said the sunburnt man. "You know that amidol acts as a developer without any free alkali being present. You just add a little amidol to a solution of sulphite, and the developer is ready. In fact, sulphite acts as an accelerator, and by increasing the proportion of sulphite in an amidol developer, you increase its power, just as you would by adding alkali to a pyro developer. So that if there is any developer in the pores of the bromide print and you put it into acid hypo, which contains sulphite, you are strengthening that developer, and so may perhaps cause it to fog or stain the print."

"I know that's the explanation that's given," said Oliver; "but do you accept it?"

"It seems to me a little far fetched," said his friend. "I suppose if a print full of an amidol developer were put into a hypo bath that was strong in sulphite, something of the sort might take place. But under ordinary conditions I should think it unlikely that any harm could result from fixing an amidol developed print in acid hypo Certainly not after the enlargement has had the washing you always give to it."

"So I think. I use plain hypo as a matter of convenience; but I don't see any harm in the other, if it happens to be at hand."

"There's one question that has puzzled me," said Lawson. "Perhaps one of you fellows can enlighten me; and that is how can one tell if a print or enlargement is fixed. You can *see* the white stuff disappear from a plate, by looking at the glass side of it; but there is nothing to be seen in the case of a print or an enlargement. How are you to tell?"

"You are not the first one who has asked that question," said the sunburnt man. "I remember it is one which was set many years ago at one of the photographic examinations; and the examiner got pretty badly heckled at a society of which he was a member, because he did not give a clear, brief answer to the question, with which, as it afterwards turned out, that particular examiner had nothing to do."

"Well, what *is* the answer?" said Lawson.

"There is no very satisfactory one. If you take a print, and, after it has been thoroughly washed from all traces of hypo, you put it in a weak sulphide bath, such as you use for toning bromide prints, and nothing happens, it was properly fixed. If the fixing were not complete in parts, those parts will be turned brown by the sulphide. But that is a test that cannot be applied until the print has been washed quite free from hypo; and if there were any of the hypo left in the print, the sulphide would darken that."

"So it has to be done by guess?" said Lawson.

"Not exactly," said Oliver. "I shall leave that enlargement for ten minutes in a solution containing three ounces of hypo to the pint, and I shall know that at the end of that ten minutes that it is properly fixed."

"How will you *know?*" persisted the other.

"How? Because I know that in that time a print is fixed in a solution of that strength."

"It may not seem very satisfactory to you"——said the sunburnt man.

"It doesn't," interposed Lawson.

——"but it's the best plan there is in the circumstances. The time is usually given in the makers' instructions, and this is sure to allow so ample a margin that there can be no doubt that the print is fully fixed."

"At the same time, it seems to me a very poor proof."

"It is," said the sunburnt man. "And it ought to make us very careful how we fix our prints, because although the time that is given in the instructions is ample when a print is fixed like Oliver's enlargement there, which simply lies all by itself in a dish of hypo, it by no means follows that the time is sufficient when a number of prints lie in a dish one on top of another, as they often are allowed to do when there are quite a number being done at once."

"What can you do?" replied Lawson. "You cannot spread them all out singly in dishes just as if they were a lot of negatives."

"No, of course you cannot But you can keep them moving; and if they are in a pile one can keep on taking out the bottom print and putting it on the top, then taking the next from underneath, putting that on top, and so on all the time."

"Will they be fixed as soon in that way as if they were to lie out singly in dishes."

"Probably not. But they would, at any rate, be fully fixed by the time specified in the instructions."

"How much longer are you fellows going to argue about fixing?" put in Oliver, who, in the meantime, had got his enlargement fixed and was washing it in a dish under the tap. "I am going to put this so that a stream of water will run through the dish, while we have some supper. What do you say?" Suiting the action to the word he fixed the dish up accordingly, and led the way downstairs.

From a Distant Reader.



Daybreak *By H. D. Beck (King William's Town S.A.)*



Washing Silver Prints.

By Harold Ashe. *Special to "Photography and Focus."*

Methods which can be used by those who have not got a mechanical washer: the minimum washing to ensure permanence: washing prints in a dish.

THE permanence of a silver print depends, in the main, upon two factors. It must be properly fixed, and must then be sufficiently washed. The washing is a process of diffusion, as the hypo and fixation productions of which we want to get rid do not lie on the surface of the print like dirt on a pane of glass, but are contained in the very pores of the print itself. To get them out, the time of soaking is comparatively unimportant; what is important is the proportion of that time during which the print is in comparatively hypo-free water. The print is only actually washing so long as the water in contact with it is practically free from what we are washing out. A print left lying for twenty-four hours on the bottom of a dish of water will contain almost as much hypo at the finish as at the start.

It is much easier to wash a negative thoroughly than to wash a print, or rather there is much greater likelihood that the negative will be properly washed. This is because it is only the most reckless worker who would allow negatives to lie one on top of the other during the washing, whereas in print washing this is a very common occurrence.

There are washing machines to be bought which keep all the prints in them separately swirling round in the water as it flows through the vessel, and for the professional photographer such forms of apparatus are more than a convenience, they are a necessity. But the amateur may not be able to afford what to him would be a luxury, or he may not have the continuous water supply which nearly all such automatic washers require, and he may be glad to know in what simpler manner he may wash his prints so as to make quite sure that he has done all that he can towards securing their permanence.

Washing Prints in a Bath.

The domestic bath affords a very easy and effective method of washing prints with a minimum of trouble. All that is required is a board—a piece of deal floor board answers admirably—and a few pins. Each print has a pin run through one corner, the print is slid down the pin a little towards the head, and the pin is then stuck into the edge of the board. In this way a series of prints may be pinned all round the board, quite distinct from each other, and the board being floated on the water in the bath, the prints hang down and the hypo soaks out of them. If they show a tendency to float up, a pin may be pushed through the lowest corner and left hanging there to act as ballast.

The question arises, How much washing of this kind is required, how long should the prints be left, and how many changes of water should be given to them? As the changing of the water in the bath takes time, it is better to give the prints a preliminary washing in a dish. To do this, as they come from the hypo each print should be drained a moment, rinsed back and front under the tap, drained, and then put in a dish of clean water. When all the prints have thus reached the water, they should be taken out one by one, drained, and put in a fresh dish of water. This should then be repeated twice, so that they have four distinct changes of water, remaining at least a couple of minutes in each. They may then be suspended in the bath.

Two things here require emphasis. One is that the



FRENCH PEASANTS IN JERSEY. BY E. F. GILBERT.
Awarded the Bronze Plaque in the Advanced Workers' Competition.

separate draining of each print is absolutely necessary, or there will be hypo carried over on its surface from one dish to the next, which will greatly interfere with its proper washing. The other is that the prints must not only hang clear of the bottom of the bath, but there should be two or three inches of water beneath them at the very least. The hypo solution as it diffuses out of them tends to sink, and there should therefore be sufficient room below the lowest part of the prints to allow it to get clear of them.

Such a method of washing is effective with less trouble to the photographer than any other which does not require a machine. After the four preliminary changes the prints may be left hanging in the bath for an hour, and should then be given two more changes in the dishes and are finished. If the bath water is itself changed once during the washing, a mere rinse at the finish should suffice.

This degree of washing may seem to some workers to be very little to be effective, as instructions to be on the right side often direct a longer washing to be given. On the other hand, it may seem quite needlessly elaborate and troublesome to those whose tendency it is to scamp the washing of their prints. In the writer's opinion it is the very minimum which silver prints (P.O.P., bromide, or gaslight) should receive if they are required to be reasonably permanent. On the other hand, carried out as described above, it is effective, as is shown by prints so treated which are still absolutely unaltered, although made several years ago, and as is also shown by the fact that prints so washed may be toned with uranium without any trouble, showing that practically all traces of the hypo have been removed.

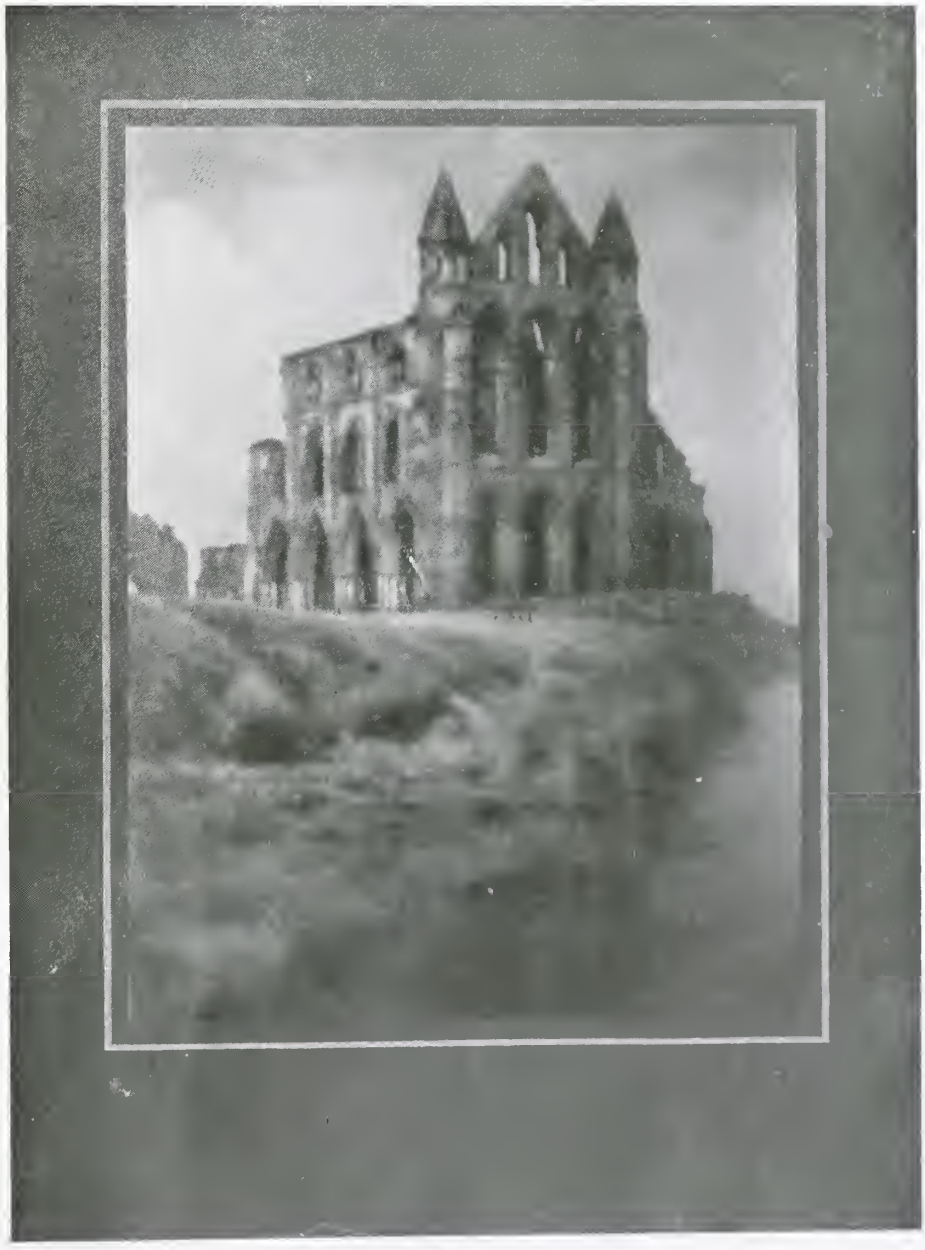
Washing Prints in Dishes.

It is not every amateur who has a bath at his disposal for the washing of his prints, and he may have to do it in a dish or dishes. For a few prints nothing is better than to wash each print in a separate dish, just as a negative would be washed, changing the water every few minutes, and at each change taking care not only that the print is allowed to drain until it ceases to drip, but also that the dish is rinsed out before filling it with clean water. A dozen such changes, spread over an hour, will be sufficient.

When the prints are numerous this cannot be done, as the supply of dishes required will be too great. There is no help for it; the prints will have to lie one upon the other, and to counterbalance the ill-effect of this the changing must be more frequent. A couple of pans of water may be used and the prints taken out two at a time, one in each hand, well drained, and then plunged beneath the surface in the other pan. As soon as they have all been changed, the first pan is emptied, rinsed, refilled, and the process repeated. A dozen changes should be given, the time required for these depending on the number dealt with; but however tedious, the draining should not be hurried.

It is said that this washing may be hastened by taking the prints in a mass, putting them on a piece of glass, covering them with a rubber sheet and passing a roller squeegee over them once or twice to squeeze out the liquid in their pores. This is done three or four times during the washing.

When a single print is to be washed, this can be most effectively done by treating it like a negative, pinning it by two corners to a piece of wood, and placing it under the tap. If it is rinsed once or twice beforehand, and is then given five minutes with its back uppermost and ten minutes face upwards, it will be found to have had all the washing that it needs.



ST. HILDA'S, WHITBY. By W. WHITTAM.

Awarded a Certificate in the Advanced Workers' Competition.



A Note on Outdoor Portraiture.

THE fact that the light is plentiful enough to allow of exposures being cut down to a second or less tempts the amateur to make his portraits out of doors rather than indoors. Sometimes he even endeavours to get them with instantaneous exposures with his hand camera; but these are often failures. The exposure which is ample for a landscape or a building in a good light will not be sufficient, in the same light, for a portrait, as in the latter the shadows are sure to be deeper, being so much nearer to the camera. Accordingly for an outdoor portrait the camera should be used on a stand, and a time exposure given.

The place in which to take a portrait wants a careful selection. The lightest place out of doors is generally the worst, because the light streaming on to the face from every quarter makes it look flat and wanting in relief. Top light is best cut off altogether, either by using the shade of a tree or by fixing up temporarily some form of screen; a sheet of brown paper, supported on two or three strings, is often all that is wanted.

Having cut off the direct top light, which by falling straight down upon the sitter's face makes deep shadows at the eyes and chin, some control of the other light should be attempted. If there is the wall of a house within two or three feet of one side of the sitter, this will help by ensuring that a good deal more light shall fall from one side than the other. If this be absent, some form of screen, like the overhead screen, must be fixed up; and this should be arranged until on looking at the sitter one can see clearly and unmistakably that there are both light and shadow sides to the face.

The background is the next consideration. While a rug, or blanket, or even a sheet of brown paper may be used as a background, it will not do to allow it to indicate what it is. All that is wanted is an even tint behind the head, and as there is almost sure to be some crease or texture on these makeshift backgrounds this must be hidden. The mere putting of the background out of focus is not generally sufficient; but if it is shaken or even swung during the exposure, all irregularities on it will disappear. If a friend is not available to shake it, it should be hung by a string that is brought round near the camera, so that the photographer can do so himself. The sitter should be far enough from the background not to throw any shadow on that part of it which appears in the picture.

If the portrait is to be a head and shoulders, the lens on most cameras is too short in focus, and the camera will be too close to the sitter, giving unpleasant perspective. If the single combination is usable, therefore, it should always be employed for this work. The tint on the cheeks, appearing, as it does, much darker in the photograph than in reality, may make them look hollow. This can be prevented by a slight application of powder.—P. W. PITMANN.



RADIANT MORN. BY W. J. HART.

Awarded a Certificate in the Advanced Workers' Competition.

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REPLIES TO CORRESPONDENTS.



Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received.

H.J.S. (Wokingham).—There is no firm of that name in the London directory.

J. FROST (Ledbury).—The three would be best arranged in order of price; all are excellent value.

C. MEUR (Camden Town).—We are sorry to say we can make no exception to the rules under which we criticise prints; see above.

GALLOWAY (Castle Douglas).—The nearest we know is the "Blocknote," made by Gaumont, of 5 and 6, Sherwood Street, Piccadilly Circus.

C. B. WANSTALL (Roydon).—Messrs. Newton and Co., opticians, Fleet Street, E.C., might be able to provide you with lantern slides of Jamaica.

ENSYPHOS (Tantallon Road, S.W.).—We see no reason why prints on phosphate papers and plates should not be as permanent as any other form of silver image.

CARBON (Maidstone).—The print is not a carbon print at all, but a toned bromide or photograph of similar kind. The reply to your second question is in the affirmative.

BENIGHTEN (Stockport). — "The Photographic Annual," price 1s. nett, or post free from our publishers 1s. 2d., is probably what you have seen, but no book contains *all* photographic formulæ.

F. G. H. BROOKES (North Petherton).—You must put the lamps as far away from the line joining the lens to the centre of the copy as you can, so that the light from them grazes the glass rather than falls direct upon it. The subject has not been the subject of an article; there is so little that can be said beyond this.

STUDENT (Penarth) asks the "name, maker, and H. and D. speed of absolutely the fastest plate on the market, ortho or non-ortho." *A.*—We have no idea. There are at least half a dozen different brands between the rapidity of which no photographer can detect any difference (although many think they can) without elaborate measuring apparatus.

J. BARR (Johanneshurg).—There can be no doubt that the blurring has been caused by the movement of the camera. If you look at the word "tobacconist" you will see that it is a distinct doubling of the image. No snow could cause as well defined an effect as this, nor would it be likely to effect a blurring at all. The print is interesting as a record of most unusual weather.

J.M. (Barnes). — A lens of 18in. focus will make your 6in. focus lens a 4½in. one. The dimension of any part of the image will be decreased in proportion, so that this will make the alteration you require. It would be best to try the effect of the lens before buying it, as it is possible that the camera would not close up sufficiently. It does not do to place too much reliance on calculations based on what can only be approximations.

ANXIOUS (Kenilworth) asks how he can test the water which comes from his prints after the last washing to see if it contains any hypo. *A.*—Two grains of potassium permanganate and ten grains of potassium carbonate are dissolved in a quart of water. The solution should be a decided pink colour, and if it is not, then distilled water must be used in making it up. A little water is put in a glass standing on a sheet of white paper, and a drop or two of this solution added, so as to give it just a faint but distinct trace of pink, and then the drainings from the print are allowed to drop into the water. If they discharge the pink colour they contain hypo.

F. RAW (Birmingham) asks how to remove iridescent marks from a Daguerreotype he wishes to copy. *A.*—The plate must be soaked in distilled water and then placed in an ounce to the pint solution of hypo. If this removes the tarnish, the hypo may be got rid of by rinsing first in ordinary water and then in distilled water. If it does not, a solution of potassium cyanide five grains to the ounce may be applied, pouring it on and off until the iridescent markings vanish, and then washing as before. On no account must the picture be touched with the finger, or with anything but a liquid. There is always a risk of injuring the picture by cleaning it, and to guard against a total loss, the Daguerreotype should be photographed before anything else is done to it.

METALLIC (Kensington).—The Nernst is the most suitable.

BROWNIE (Peterborough).—The Xit camera is made by Messrs. J. F. Shew and Co., 88, Newman Street, Oxford Street, London, W.

J.M. (Lanarkshire).—We know nothing of the production of steel engravings, which are quite outside the scope of photography.

MARSHALL (Dalston).—The honorary secretary of the Hackney Photographic Society is Mr. Walter Selfe, of 24, Pembury Road, Clapton, London, N.E.

ANXIOUS (Brighouse).—We have never heard that silver phosphate can be used in the silver bath for wet plate work in place of silver nitrate, and should think it most improbable.

SHUTTER (Bootle).—The only alternative would be to get a large size diaphragm shutter, but this would cost a good deal more than a roller blind shutter, nor would it be more efficient, as you seem to suggest.

GLEN (Glasgow).—We are unable to give you a formula for making bromide postcards, as this is work that can only be successfully conducted on a large scale. The actual formulæ used by makers are not published.

H. ROTH (Leicester).—It can be done with a mixture of equal parts of ten per cent. solutions. You can dilute them if you wish, it only slows the action. It should be followed by fixing in clean hypo. and a thorough wash.

W. H. MILLER (Elstree).—The rules were printed last week; and the kind of photograph can best be seen from the examples we reproduce. If you mean what process, we can only add that there are no restrictions, and that every process has at some time or another been represented amongst the winning prints.

KLITO (Newtown).—The print certainly suggests that the negative required a good deal more development than it has received. This can be remedied to some extent by intensifying it with mercury and ammonia; but it would be better to take care to develop fully in future. We have sent the print back.

VISPEY (Colne).—We are very glad to hear that you are pleased with what we recommended. The defect is one which is more due to the absence of an effective hood than to the design of the lens itself; your selection of a f/4.5 lens could not be bettered and, unless you get it without a hood, we do not think you will have any trouble.

H. PARKER (Wigan).—An ordinary eyeglass or positive lens of 5in. focus would serve, and could be obtained from any optician. We cannot give dimensions, as these would depend on the actual focus of the lens used. It would be best to find out roughly by trial before making the enlarger, and then making the final adjustment when it was nearly finished.

ANXIOUS (Luton).—The print has been sent back. We are afraid that you are not justified in selling the prints. If the photographer took them to the order of the sitters and charged the full ordinary price for doing so, the sitter who ordered them could give you permission to copy them. But this apparently is not what he did. You will do well to avoid trouble.

CONSTANT READER (Enniskillen).—There is no remedy if they are completely spoilt, but it is sometimes possible to use them and to clean the pictures up afterwards by a weak ferricyanide and hypo reducer. The whole of the sensitive material can be removed by placing the cards in hypo for ten minutes and then washing them. If they are visibly discoloured, a ferricyanide and hypo reducer should be applied before fixing to clear them.

GASLIGHT (Willesden).—Most of the marks are due to slight over-development, or to the use of too strong a developer. These can be cured by giving the prints a bath of a weak ferricyanide and hypo reducer, hypo with just enough ferricyanide added to give it a pale yellow colour. They should be taken out as soon as the marks are gone, or the print itself will be reduced too much. The brown stains are due to oxidation of the developer, and can be prevented by washing the prints for a minute between developing and fixing, and by taking care to keep them well under the surface of the hypo during fixing.

J.T.D. (East Sheen).—The exposure required by both brands is approximately the same.

DR. HUNT (Manchester).—The reply was quite correct; the business is now being wound up.

DISGUSTED (Broadwater).—Sorry, but what did you expect? If you will send us the prints we will try and help.

OTTO (Junction Road).—It is not yet on the market, but we expect that it will be advertised in our columns very shortly.

L.P.H. (Castleton).—The exposures with gaslight paper would certainly range much longer than that, but with an hour something could be done.

OZO (Highgate).—A slight loss is inevitable, but for anything over quarter-plate it is too small to be worth consideration. We are glad to hear you got on well with the other method.

OLD BOOTS (Lewisham).—The only place is Stevens's Auction Rooms, 38, King Street, Covent Garden, London, E.C. Sales of photographic apparatus take place every Friday.

WALTER (Liverpool).—It should consist of two glasses cemented together with Canada Balsam. The joint will probably be visible along the edge. No attempt to separate them must be made.

MASTIC (Lahore).—It is usually employed; but as you are getting on quite well without it, we do not see the need for making any alteration. Very glad to hear such good accounts of the paper; we know it circulates very extensively in India.

W.L. (Stockport).—The article on page 214 of our issue for September 14th, 1909, should be sufficient for your purpose. It is better not to remount it, but simply to place it on a piece of glass to print, or to enclose it between two pieces if it is to be put away.

T.O.P. (Walsall).—It is really a matter of subject and of the effect that is wanted. If you read carefully Mr. Jennings's paper in the last two issues of *Photography and Focus* you will find the subject dealt with fairly fully. It is not a matter for hard and fast rules.

NEWARK (Leytonstone).—We will pass your suggestion on to one or two of the big makers. The marks on the road are caused by lamps, probably cyclists' lamps, to judge by the sharp turn made by one of them, as he took his machine into one of the houses on the left.

C. MARTON (Newton Flotman).—Most of the big dealers supply special sets of colours for the purpose. Full instructions are given with them. Lockyer's Tints are very suitable; they can be obtained from any dealer, or direct from J. E. Lockyer, 244, Evelyn Street, Deptford, London, S.E.

COVENT GARDEN (Wimbeldon).—Orthochromatic plates backed, full exposure, development carried only just far enough, intensifying afterwards if necessary, form the course to be followed. If they are yellow or red a colour screen will be a necessity, but when otherwise many of the best photographs are produced without it.

J.T.S. (Marlow).—For portraits of the same size the No. 2 or No. 3 lens would be no better than the No. 4. You might get such a lens as the Homocentric, it would be better in this respect, as its field is very flat, but not so fast as the portrait lens you have. We do not see that you are at all likely to improve matters by changing.

T. SMITH (Anerley).—You are lucky to get it back. In future you would do well to insist on satisfactory references, or to use the deposit system; but by expecting to buy at such prices you lose claim to much sympathy. Would *you* like to do the work for a halfpenny, which represents the difference between the cost of the material and the price you were prepared to pay?

PETT RIDGE (Chorley).—The cause of the air bells is the immersion face downwards. What you mean by "cure" we do not know. Have they left marks? If so, they are presumably caused by the oxidation of the developer in those parts, and the application of an acid-alum bath should remove them. We do not quite follow why the plate was not washed face upwards in the usual way. See rule 3 above.

EDWARDS'
"KRISTAL"
LANTERN PLATES.

EDWARDS' "KRISTAL" PLATES are unrivalled for making lantern slides and transparencies by contact. The range of tone, from pure black to ruby red and any intermediate tone, is obtainable with ease and certainty. No toning is required, even for purple tones.

NO DARK ROOM REQUIRED.

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TRADE MARKS OF QUALITY AND RELIABILITY

EDWARDS'
SPECIAL TRANSPARENCY
PLATES.

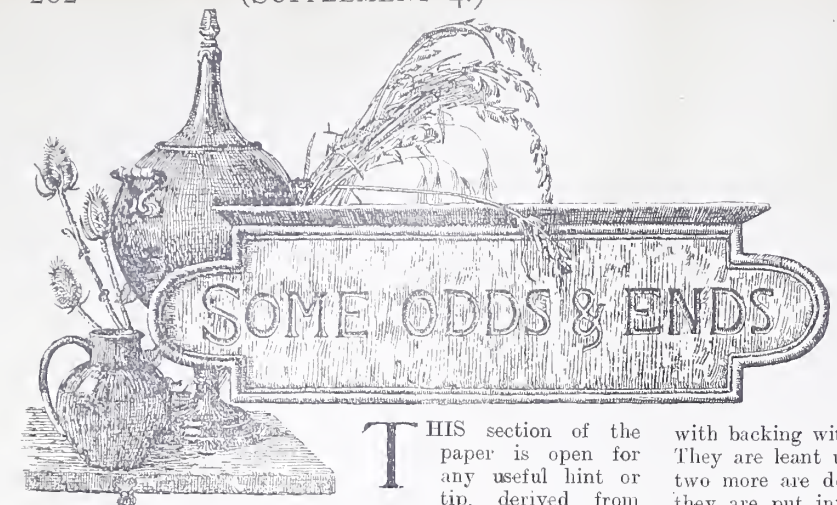
A more rapid plate than the "Kristal"—for either contact or reduction in the camera. Yield lantern slides of the highest quality with full gradation, giving clear high lights and transparent shadows. For pure black to warm black tones.

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The **LETO** PHOTO MATERIALS COMPANY LIMITED, "Roman Wall House," 1, Crutched Friars, London, E.C.

Proprietors of **B. J. EDWARDS & CO., Ealing.**



THIS section of the paper is open for any useful hint or tip, derived from his own practice, which any reader is willing to place at the disposal of his fellow workers. Most of us have some little device which we find useful, which, however obvious it may seem to us, may not be known to others. Perhaps those who find any of the hints which we publish on this page of use to them in their own work will see if they in their turn may not be able to furnish some tip or suggestion of service to others. A few lines describing it will always be welcome. Readers who are not accustomed to express themselves in print need not let that deter them, as if they will provide the straw we shall be very pleased to shape it into the literary brick.



Drying Negatives Quickly.

I have found the following method of drying negatives quickly to work very well indeed. An ordinary gas burner is lit, and the flame turned down until it is about the same size as a candle flame. The negative is then taken out of the washing water, the surface water removed with a piece of fluffless rag, and it is then held about six inches above the gas flame with the glass side downwards and slowly moved backwards and forwards, taking care that the glass does not become too hot or the film will melt. It should dry in ten minutes. It is important that the negative has not been partly dried before the process was begun, or drying marks will result. [It should be pointed out that different makes of plate vary much in the degree of heat they will stand without injury, and it would be as well to test the plate in this respect to make sure that the film is sufficiently hardened for the method to be practical.—Ed.] If photographers are not willing at first to risk a good negative, let them wet a spoilt plate and see how quickly it will dry without accidents of any kind.—P. R. Hatch.

To Find Due South without a Compass.

This can be done by holding an ordinary watch face upwards with the hour hand pointing to the sun. The point half-way between that and twelve o'clock point, counting forward in the morning and backward in the afternoon, is then due south. Thus at 4 p.m., when the hour hand points to the sun, the II. point, which is half-way between IIII. and XII., is due south. At 6 a.m. the IX., and at 6 p.m. the III. is due south. The rule is based on the fact that the hour hand of the watch makes two complete circuits of the dial, while the sun is making one (apparent).—W. G. Puttick.

Printing Plates.

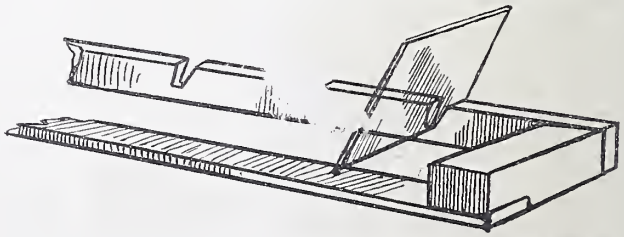
The extra cost of backed plates is a consideration to a good many, and they are therefore tempted to use unbacked plates, from the idea that backing them is troublesome. I back all my plates just before putting them into the dark slides, and do it without any apparatus beyond a dabber made of a ball of flannel and an old negative as a palette. Squeezing out a little backing from the tube on to the old negative, I dab it well until it is distributed fairly evenly over the glass, and then darken up the room. Two plates are taken out of the packet and held face to face with nothing between them. In this position they may be well dabbed with backing without the slightest trace getting on the front. They are leant up against the wall, backing outwards, while two more are done in the same way. When all are backed they are put into the slides. There is no need to wait for the backing to get quite dry; no harm results if it is a little tacky when the slides are filled.—H. T. Evans.

Labelling Bottles.

After having suffered very considerably from all the different defects of labels, staining, rotting away under the action of chemicals, dropping off, I determined to try and find some method which would prevent them. After a little experimenting the following was employed for all the ordinary stock bottles, and has been found to work excellently. The names were painted on the bottles with Brunswick Black, and after this had got quite dry a plain piece of thin white paper was stuck down over it by means of seccotine. A couple of coats of ordinary negative varnish made this translucent, and allowed the black to show through quite clearly. These labels possess several advantages. They are neat, legible, and not at all liable to get stained or to come off. They can be read by holding up the bottle and looking through them even in the feeblest red light, and they can also be read from the back, if the label happen to be facing the other way.—Nahum Short.

A Negative Rack.

The method usually recommended for the rapid and safe drying of negatives is to stand them on nails driven into a wall. This is all right if the wall is to be had, but not when developing has to be done in an ordinary room or in a cellar (mine has to be done in the latter), because in the first case nails cannot well be hammered into the wall paper of a living room, and in the second there is probably little or no draught to dry the negatives. I made a rack at a cost of one penny which accommodates twenty or so of quarter-plates, holding them well apart, and offering no obstruction whatever to free circulation of air. It will take any size up to 10 × 8 safely. The sketch explains itself.



In ordinary use I take the plates from the washing water, wipe each one with a wad of wool, put it in the rack, face upward, and carry the whole lot, when ready, upstairs to the bedroom, where I stand the rack on the inside window-ledge. The draught dries the negatives thoroughly in an hour or two in dry weather, and even in the damp days they usually dry overnight ready for printing in the morning. I have had no trouble from dust settling on the plates, as my window overlooks gardens, not the road.—S.J.T.

THE VASTLY EXTENDED USE OF

TONED BROMIDE FOR EXHIBITION PRINTS,

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which yields easily a fine range of

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N.B.—This **New Bromide** has also the unique advantage of being entirely free from **Stress Marks**, so that no cleaning is necessary.

ASK YOUR DEALER FOR IT,

or, if preferred, we send post free on receipt of remittance.

6d. and 1/- packets, ALL SIZES AND GRADES.

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SOLE MANUFACTURERS.

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FIRST PRIZE:
Photography and Focus SILVER PLAQUE.

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Photography and Focus BRONZE PLAQUE.

THIRD PRIZE:
A signed copy of "THE COMPLETE PHOTOGRAPHER," a half guinea work by Mr. Child Bayley (now in its third edition).

Certificates of honourable mention will also be placed at the disposal of the Judges.

TO OUR

COLONIAL & FOREIGN READERS.

The difficulties of distance, and the time taken in the post, has interfered very much to prevent our readers in distant lands from entering for our competitions to an extent at all proportionate to their numbers. *Photography and Focus*, as we know, makes its way to every corner of the Globe, and no land seems so remote or so little frequented that sooner or later we do not hear from a reader there.

We have arranged therefore a special competition for such readers, the rules of which we print below.

THE

GREATER BRITAIN COMPETITION

Two Classes: (1) Beginners (2) Advanced.

— — RULES — —

(1.) Any amateur photographer may compete, provided (*a*) he resides in any part of the British Empire, beyond Europe, or (*b*) is a Briton living in any foreign country beyond Europe. If he has never taken an award in any photographic competition, he can enter in either class at his discretion. If he has taken an award, he must enter the "advanced" class.

(2.) Each competitor can send as many prints as he likes, but each print must bear on the back the name and address of the sender, the title of the picture, the class entered, and no other writing whatsoever.

(3.) No print will be eligible that is larger than 5½in. × 3½in. (postcard size) or 5in. × 4in.

(4.) No print must be mounted.

(5.) No handwork other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute the Editor shall have the right to call for the original negative, from which the entry purports to be a simple direct contact print.

(6.) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(7.) The Publishers of *Photography and Focus* reserve the right to reproduce, without payment, any of the prints sent in, winning or otherwise.

(8.) All entries must be addressed "Greater Britain Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by Saturday, April 30th, 1910.

Fickle?

Are you fickle in the purchase of printing papers? Do you rove about from one make to another—sampling all and sticking to none? If so it is because you have not yet had the opportunity of trying

Gevaert PAPERS.

They are the leading papers in all other European countries, and are rapidly taking the same position in England and the Colonies.

There is something distinctive in these papers—it is the Gevaert quality.

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Send for copy of Gevaert LIST.





"The time has come, the Walrus said, to talk of many things."

I WAS asked some time ago why I did not write something about dark-room lamps. The question indicated a regrettable ignorance of my valuable contributions to photographic literature (Your *what?*—ED.) because I have more than once dealt with the subject most ably and exhaustively. (Please note that my trumpeter being dead I am blowing my own trombone.) However, I am now tempted to return to the subject, because I have been reading an article on a novel method of dark-room illumination. A photographer who wished to develop some plates when he was unprovided with any orthodox form of light for the purpose, did his work by cigar light, and suggested the same method as a good one for other photographers to imitate.

* * *

Now I strongly protest against this sort of thing. I resent the luxury of the method. To answer the purpose it is essential that the cigar should burn brightly and evenly. This means that the cigar must be a good one. It would probably cost twopence. The vast majority of us can only afford cheaper cigars, and even these but occasionally; and our brands are of the kind that will only light in parts, and the poor quality of the light emitted is only equalled by the villainous character of the aroma. To smoke one in the open is by no means an ecstatic experience, and to puff one in a confined dark-room would mean certain death. I would suggest as a more attainable alternative a transparent red pipe, in which we could smoke our accustomed shag, or the shredded product of the cigar ends we are fortunate enough occasionally to pick up in the streets. I recognise the objection that even this would not be a popular means of illumination in the case of lady photographers.

* * *

It is on the same score of unwarranted luxury that I object to the recommendation of a hock bottle with a candle inside to develop by. In my own case a carefully executed surreptitious raid on the domestic stores may result in the acquisition of the necessary candle, but the hock bottle is another matter. Fond as I am of hock a single annual bottle is about the limit, and everyone who has tried it knows that a hock bottle never lasts more than one evening, and seldom that, without breaking. Guarantee me an unlimited supply of full hock bottles and I will cheerfully attend to their emptying, and will willingly abandon my usual lamp in their favour. But I shall want to make sure first that the supply of bottles is assured.

* * *

Another recommended form of light is a small glass jam jar inside a large glass pickle jar, with the intervening space fitted with saturated solution of potassium bichromate. An electric light is placed in the inner jar. I simply dote on this form of lamp, and could rake up all the necessary parts except the electric light, and I am afraid that the omission of the light would detract from the efficiency of the arrangement. Some bloated aristocrats of photographers are so accustomed to lolling in the lap of luxury that they would unblushingly recommend that photographers in general should illuminate their dark-rooms with artistic festoons of red and green fairy lamps, with a Roman candle in the waste pipe to shoot out coloured balls at intervals, and a non-actinic crown and "God save the King" over the sink. They do not realise the sad fact that most of their fellows have to be content with the remains of a night-light surrounded by an old cover of *Photography and Focus* secured by a precarious hairpin.

* * *

I have much more sympathy with the suggestions of a writer who will describe the construction of a dark-room lamp that lies more within the means of the average photographer. For example, it is not beyond the dreams of some of us to be able to acquire an old wooden box, plug up the cracks and crevices with rags or paper, and replace one side with a section of discarded red petticoat carefully patched where necessary. A candle may be stuck inside, supported in the neck of an empty beer bottle with the aid of a rusty skewer, and an excellent chimney may be devised from an old potted-meat can. From a meat hook above may be suspended a derelict pail, filled with water, and provided with a string for its prompt inversion when the inevitable conflagration supervenes. Although such a contrivance would be absolutely useless for any photographic purpose, it would have the advantage of being impressive in appearance, and would be comparatively cheap. Anyhow it is distinctly more attainable for most of us than a twopenny cigar.

* * *

Here I must reluctantly end for the present my remarks on dark-room illumination, as I wish to refer briefly to another interesting matter. An advertiser in this paper recently worded his advertisement as follows.—"Do you want Sanderson quarter, Beck f/8, hand camera?" My own reply to this question would have been, "Yes, please, sir;" and I should have accepted the apparatus with avidity and gratitude, not unmixed with amazement at my rare good fortune. But amongst the replies to this advertisement was a letter which I will quote word for word, as the most astounding specimen of undiluted lunacy and cocksure ignorance that can well be imagined. Here it is: "Dear Sir, In reply to your advertisement Do you want a Sanderson with Beck lens? No I don't! If there is one thing in the photographic world that I should bar it is a Sanderson (with all its useless and complicated movements) fitted with a Beck *Lens* (so called). Am glad to see that you are trying to get rid of it. Try the Ross "Panros," the Goerz-Anschutz, or any similar type of *Camera* and *Lens*. Yours faithfully, Photographer (not Amateur or Crank)."

* * *

This pointed repudiation of the title "crank" leads the advertiser wisely to observe, "Your lunatic is almost invariably ignorant of his madness." I agree. But all the same the writer of that letter should be placed at once under proper control. The useless and complicated movements of a Sanderson camera have clearly been too much for him. He probably thinks he is a universal swing front, that he has a double extension, and that his infinity mark has slipped into his diaphragm. He is not a crank. He is worse. He is cranky. In view of his weighty opinions Messrs. Houghton and Beck have no decent alternative but to shut up shop. They have hitherto traded on our ignorance; and although we have been delighted with their productions our eyes have now been opened by one who is not a crank.

THE WALRUS.

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October 5th, 1909. TUESDAY. No. 1,091. Vol. XXVIII.

Determining Contrast in Slide Making.

Showing how misleading it is to judge a slide in the hand, and why : the influence of the light on the apparent contrast of the slide : timing development the safest guide : plenty of light in the dark room a necessity.

THERE is one serious handicap for the would be slide maker, and that is that unless he has a lantern at his disposal he is not able to see what his slides look like; and even when he is a member of a society which possesses a lantern, and so can try them from time to time, he is not able to do so immediately after making them, while he has everything ready for making another if the first should prove to be not quite what he wanted. Looking through a large number of slides by many workers, such as are sent in to the *Photography and Focus* slide competitions, this fact is very evident; and one can pick out a great many slides which their owners would certainly have withheld from the competition if they had been able to see them in a lantern before sending them in.

A good many years ago a number of judges at photographic exhibitions met and agreed never to judge lantern slides unless they could be seen on the screen, and this practice has now become universal. Even expert workers recognise that a slide that looks poor and weak in the hand may be beautifully rich and deep when projected; and if this is so with the workers of the class from which photographic judges are drawn, still more so is it with the less experienced photographers who make up the majority of the competitors.

Why a Slide must be Judged in the Lantern.

The reason why it is not possible to judge a slide in the hand can be stated very briefly. Except for certain specific purposes, it is now pretty generally agreed that a lantern slide should not be of a plain black colour, but should have a little warmth, or even be purple or red. The favourite process for producing this colour is the use of a highly restrained developer, and this gives the image when seen by reflected light a yellow, cream, or even white colour. When a slide of this kind is examined in the hand the light not only passes through it, as it does when the slide is in the lantern, but it also falls upon it and is reflected to the eye. The image in what is a shadow in the picture stops most of the light passing through, but, being of a light colour, it reflects most of the light falling on it, the one action tending to neutralise the other. On the other hand, the transparent parts of the slide let the transmitted light pass, but reflect none of what falls on them. The consequence is that slides of this kind always look much weaker when seen in the hand than they do in the lantern. How much weaker we have no means of judging properly, and so are unable to gauge the quality of the slide except by projecting it.

MEMORANDA *for the week.*

Note this space for occasional offers of which advantage should be taken.

A Simple Experiment.

This can be very well shown by arranging a slide so that it can be lit either by reflected light or by transmitted light at will. When lit entirely by reflected light, if it be one of the warm toned slides with a white image, it will appear as a negative, the shadows light, the high lights dark. When the illumination is by transmitted light only, it appears as a positive, of course, with light highlights and dark shadows; while by adjusting the two forms of illumination it can be arranged so that the image is practically invisible, showing in an unmistakable way how little reliance can be placed on the examination of slides in the hand.

The Influence of the Illuminant.

There is still another reason for testing slides in the lantern, and that is that the appearance of the picture on the screen is very largely influenced by both the

strength and the colour of the light. The best amateur slide makers have the illuminant in view when making their slides, and would produce quite a different slide for use in a lantern with an electric arc than they would make for one with the feebler "blow-through" limelight, and this in turn would be different from the slide made to be shown by an oil light. This may seem very elaborate, and may deter some workers from trying their hands at slide making; but it need not do so, for, although these refinements are not without effect, a very good average of slides may be made without them.

As far as mere strength of light goes, the photographer who only has a comparatively weak illuminant may counteract this to a great extent by keeping the scale of his projection small. An oil lantern on a cardboard screen about two feet across will then give a very fair idea of the appearance of the slide when projected by a powerful limelight on a twelve foot screen or larger.

Judging Density while Developing.

The examination of the slide in the lantern, however, is only the last stage; and the slide maker wants something to guide him as to the correct density in development. The best way in the case of warm toned slides undoubtedly is not to judge density by the eye at all, but to have a fixed time of development (according to the composition of the developer and its temperature) and to develop every slide for precisely that time. If this gives a slide that is too dark, the exposure must be reduced, if too light it must be increased. This method is the only one for securing perfect uniformity of colour.

It is easy to determine the right depth with black tone slides, as their appearance in the dark room is not very different from their appearance out of it; but warm tone slides, especially those which approach red in colour, are most deceptive. When the worker is constantly making slides of the same colour, he gradually acquires the knack of judging their density in the dark room; but when only one or two at a time are made, at long intervals, there is great likelihood of error. Fortunately, lantern plates are cheap, and when one has failed a fresh plate, with the guidance provided by the failure, will generally enable a passable result to be obtained.

The Light in the Dark Room.

The stronger the light in the dark room, and the less it is red or yellow in colour, the easier it is to determine how far to carry development. For this reason, gaslight lantern plates are deservedly popular, and the clear stain-like image that can be obtained on them is eminently suitable for the lantern.

There is no finer way of showing what is in a negative than as a lantern slide; and there is no photographic operation in which careful technique meets with so full a reward in the results. Nothing that has been written above should deter the photographer from trying his hand at slide making, which is certainly no more difficult than making a good print. All that is needed is to recognise the essential differences that exist between the lantern slide and the print, and not to allow ideas appropriate enough to the one to influence the production of the other. W. D.



Popularising the Syllabus.

The opening of the autumn session of the societies is now upon us, and it is well to remind some of the organisers that, if a society is to grow and flourish, the syllabus must be popularised. This is always a little difficult to bear in mind as fully as is necessary, for a very good reason. The secretary, the officer upon whom the arrangements generally devolve, is almost always one of the best workers in the club, and in drawing up the syllabus the members who assist him are likely to be of similar photographic standing. It will need constant watching over themselves, therefore, to ensure that the meetings are occupied not with what appeals to them as advanced workers, but with what will be profitable to the great body of members, who require, as a rule, something less advanced. Demonstrations of the standard processes, lantern lectures, and beginners' nights should therefore figure prominently. Some sound advice on this point is given by "Camera" in the Glasgow Evening Times." He writes: "The ideal winter syllabus is one that caters for the wants of as many as possible, so that every member may feel that his needs are having the consideration of the officials. When members fancy that there is no point of interest to them in the syllabus attendance begins to wane. It is better, therefore, to commence the popularising of the meetings before members drop off rather than attempt to popularise the meetings after the process of disintegration has fairly set in."

Head and Shoulders Portraits.

A fault which is noticeable in a great deal of the portrait work done by amateurs, when this takes the form of comparatively large heads, is that the perspective is greatly exaggerated by the camera being too near the sitter. The R.R. or anastigmat which is usually fitted to the cameras used by amateurs is of a suitable focal length for landscape, architecture, groups, etc., such as form the average run of amateur work; but when the subject is a head and shoulders portrait the camera has to be brought up close to the face of the model, and an unnatural effect is obtained at once. The photographer often has the remedy in his own hands. He can unscrew half the lens and use the other half, which will be of nearly double the focus, and so will allow him to get a head of the same size, but from a standpoint that is further off. The reasons why this is not employed oftener are, no doubt, first, that the half lens requires the exposure to be increased three or four times for the same stop, and second, that in many cases, while the camera extension is sufficient to allow the half lens to be used for landscape and other distant objects, it is not great enough to allow us to focus something which at the most is only a few feet from the camera. A good

portrait is always worth enlarging, and if it is to be enlarged it will not make much difference whether the face on the original negative is half an inch wide or an inch and a half. The photographer, therefore, who has only got a lens of the usual focus on his camera, when he comes to make a head and shoulders portrait, instead of getting the image of his sitter's head and shoulders occupying nearly all the plate, going close up to the model to do so, should get as far away as the room will comfortably allow, even if the head and shoulders only occupy a very small portion of the plate. He will then avoid all strained perspective effects. This course will bring with it another advantage. At the greater distance it will be found that it is quite easy to get the whole of the head and shoulders sharp with the full aperture of the lens, whereas when the camera is nearer, either the focussing must be to some extent a compromise or the lens must be stopped down. Such a negative may be masked down until the picture which is wanted just forms a little patch in the centre of it, and then this patch may either be directly enlarged on bromide paper or may be copied by contact on another plate, and then the positive so obtained put in the lantern and enlarged on to a fresh plate of any desired size. It may be a little more trouble, but it is trouble well worth taking.

TO A TELESCOPIC TRIPOD.

I saw thee in a photographic mart,
"Neat and compact, 5s."—and I bought.
Neat? Beyond doubt. Compact? Ay, that thou art!
Compact of far more vices than I thought
Could ever lurk in tubes of polished brass,
And I—I bought thee, like a silly ass.
. . . . Alas!
Often, with labour, I draw out a joint,
But when I would untelescope the next
I find a human eye upon thy point,
And a bystander, vehemently vext,
Urging me, in the anguish of his soul,
Better to keep thy limbs beneath control;
Till in my wrath I turn and bid him hold his tongue,
Lest, besides losing eyes, he find his neck is wrung!
Thy foolish, futile top
Is the one place whereon no camera will stop,
And as thou tremblest to the wind's caress,
What fuzziosities my plates impress!
And oh, how oft, with ne'er a warning sound,
Thou telescopest softly to the ground!
Or if one leg alone thinks fit to close,
Hurlest my precious camera on its nose!
Yea, many a time and oft my heart hath quoke
With fear lest I should find my anastigmat broke!
. . . . . .
Nay, I will not continue in this manner . . .
Will someone buy a tripod for a tanner?

The Zoological Photographs at the R.P.S

As the catalogue of the R.P.S. exhibition is likely to mislead, we would point out that frames No. 447-497 in the Technical Section, which occupy the whole of the south wall of the balcony, are a collective exhibit by members of the Zoological Photographic Club, of which Mr. Douglas English is the president. The club is a very flourishing and active body, and we hope will be able to continue to contribute its quota towards the scientific side of the New Gallery exhibition. If the exhibit this year is any evidence of what it is likely to do in the future, it would be worth the consideration of the committee whether so interesting and attractive an exhibit might not be accommodated elsewhere than in a narrow and little visited balcony. It is to the president of the Zoological Photographic Club also that the Royal Photographic Society owes the collection by Voightländer, of Leipzig, which also contains some very good distinctive work, notably Herr Meerwath's "Fox Cub" (No. 507).

Our Lantern Slide Competition.

The time is now getting very short for those slide workers who have still to make the slides which they propose to enter for one competition which closes on Monday, October 18th. For the benefit of those who might have overlooked the earlier announcements, we reprint the rules on page 277 this week. The competition, which is open to all photographers without exception, is divided into six classes, and in each class one of the *Photography* silver plaques, one of the bronze plaques, a bronze medal, and four certificates are offered. In addition a selection of the slides sent in will be purchased, at the rate of half a crown each, for circulation.

Cameras in Tramcars.

We are glad to note that the Edinburgh Photographic Society has lost no time in taking up the suggestion made in this column about a month ago, and getting an understanding from the manager of the Edinburgh and District Tramway Co., Ltd., as to the conveyance of cameras in tramcars without charge. The honorary secretary of the society, Mr. M'Culloch, sends us the correspondence, by which it is made clear that the "company does not intend to charge for any ordinary camera, which can be carried on the knee or at the feet of the passenger and is not left outside on the platform." The company pointed out that the whole object of the rule under which the trouble arose was to prevent unwieldy articles of luggage being taken into the cars to the inconvenience of other passengers, and our readers will recollect that an extra charge was made on a passenger because he had with him a half-plate reflex. It is to be hoped the last has been heard of any attempt to charge extra for the carriage of what is, when all is said and done, a hand camera, if a large one.

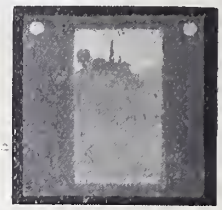
Points to Note about our Next Issue.

A FEATURE of next week's "Photography and Focus" will be the reproduction in colour on art paper of several pictures from the exhibition of the Royal Photographic Society now open. "Composition in Landscape Photography" by Cecil Fenton and "Supplementary Positives" by C. H. Bothell are two interesting articles which it will contain. "The Critical Causerie," a "Dark Room Dialogue," and a further instalment of the series of notes on "Making the Best of It" will also help to form an issue which both for pictures and reading matter should suit photographers of the most varied tastes.



Mounting Slides.

Hints on Masking, Binding, and Spotting Slides.



By T. Orton Murray.

Special to "Photography and Focus."

IT has been said that the most tedious part of slide making is the masking and finishing off of the slides; and if there are many to be done there is a good deal of truth in the saying. Yet much of the effect of the slide, and still more of its permanence, depends upon the proper finishing of it, from the time when the hypo is washed out until the slide goes upon the sheet.

Those who have made slides for repeated showing know that in course of time, especially when lanterns with powerful illuminants like the oxyhydrogen or electric arc are used, the slide deteriorates. Its fine details disappear, and the principal outlines of the picture appear to stand up in relief. When this action has gone on far, the slide is quite spoilt. It is said to be due to the effect of heat upon the gelatine of the plate when this contains moisture, and that it can be prevented entirely by giving the film a thorough hardening in formalin. A mixture of one part of formalin with ten of water, applied for two or three minutes, should be sufficient. The formalin bath should be applied when the washing of the slide is finished, and should be followed by a rinse for a minute or two.

Varnishing, also, seems to be a complete protection. The slide should be allowed to get apparently quite dry, and then be made hot in front of the fire to drive off any moisture absorbed by the gelatine, which is very prone to attract water from the air, and varnished while in this condition of ultra-dryness.

No lantern slide should be bound up until it has been examined in the lantern to make sure that it is right. The examination should also be used to show whether the slide needs spotting. Some spots which are noticeable when the slide is held in the hand may not be very conspicuous on the sheet, and it is as well not to do any more spotting than is absolutely necessary. A dark spot in a deep shadow may go unnoticed, just as will light ones in a light portion; and



THE OLD LANE. BY FRANCIS A. TINKER.

Awarded a Certificate in the Advanced Workers' Competition just closed.



AWAY TO THE WEST

BY ARTHUR MARSHALL, A.R.I.B.A., F.R.P.S.

The original of this picture is at the Photographic Salon.



Some Prints from Recent Competitions.

Milking. By F. H. Gough. *A Collie. By E. G. C. Hogan.*
Landscape. By Dr. Richard Legge.
The Frozen Brook. By H. T. Winterhalder.
A Fair Wind. By F. G. Prideaux.

when the subject is very much broken up spots are often quite unobtrusive, and are best left alone.

The best instrument for filling up clear spots will be found to be a mapping pen, as its point is more easily directed to the exact place to which the colour is to be applied than is the tip of a brush. A little water colour should be mixed up until it is as good a match with the tone of the slide as can be managed, always remembering that the matching must be done by looking through and not on to both slide and pigment. The merest trace of colour will be found to be sufficient, and the aim must be to apply sufficient with a single touch of the pen point to obliterate the spot. Any attempt to move the pen about will in all probability damage the film.

Black spots can be taken out by cutting the gelatine away with a sharp instrument, or by reducing. A drop of ferricyanide and hypo applied with a fine brush, following by a good wash under the tap, will lower the tone of a black spot to any desired degree. If it is to be cut away, the pen-nib print trimmer is as handy a tool as anything. But far better than the result of even the most skilful spotter is it to keep the slide free from spots to start with. Only when the spot is in the original negative should any attempt be made to doctor it on the slide, and even then it is easier, if it is a clear spot on the negative, to take it out there instead of on the slide. Spots which take their origin in the slide are best taken out by using the slide as a cover glass and making another.

I cannot say that I care to use the ready cut masks for slides, as it is only now and again that they are exactly what are wanted, and generally lead to a little more being left in the picture, or taken out, as the case may be. There is a thin paper, black on one side, white on the other, which is known as waterproof paper, and sold by some of the big dealers for sticking on the back of P.O.P. prints while on the ferrotypes, so that they can be mounted without losing their gloss, and this is what I prefer for masking slides. A sixpenny packet is sufficient for several hundred slides, so it is cheap enough. Quarter-plate pieces are the most convenient, as they are the right width already—3¼in.—and all that is necessary is to cut a number of the pieces into strips of various widths from 1¼in. downwards, and all 3¼in. long. This should be done with a sharp knife and a straight edge, as the strips must have quite clean and straight boundaries, since these will form the borders of the picture.

The most convenient way of masking a slide is to put it film upwards on a sheet of white paper, put two little patches of gum on the black side of one of the paper strips, and then put it down on the slide in the required position, so that its edge forms the bottom boundary of that part of the image which is to be seen. When it is adjusted exactly, it is gently pressed down for the gum to adhere and left for a few minutes while another one is done. At the end of that time the top margin of the picture can be masked with another strip, and then the two sides in turn. It is not difficult to adjust the strips by the eye alone, until they



Some Prints from Recent Competitions.

Rushing Waters. By F. R. Bickley.
Bending Boughs with Verdure Clad the Sight. By H. G. Batchelor.
Waiting to be Sheared. By E. Minshall.
Reaper and Binder. By Thos. M. Parker.
Where have you Children been? By A. Sykes.

are strictly parallel and at right angles, but if there is any trouble in doing so, two series of parallel lines at right angles to each other may be ruled on the paper underneath to serve as guides.

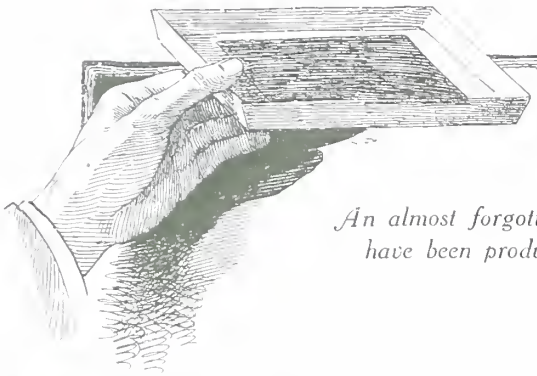
The strips so applied will overhang the slide at the edges, more or less, but they must not be cut off until the adhesive is dry. The slide is then turned over on a piece of glass, and holding it firmly down and using its edges as a guide for the knife these are easily cut down to the exact size of the slide itself.

Any writing that may be necessary can be put on the white back of the mask at this stage in black ink. If a mask dark on both sides is used, white ink, made by mixing up a little Chinese white water colour, must be used. Now also is the time to put on the slide the two spots which indicate to the lanternist at a glance the way the slide is to be put into the lantern. The rule as to these is that when the slide is looked at so that the picture is seen the right way round, as it should appear on the sheet, the two spots are to be placed at the two top corners facing the observer. If the negative was the right way round in the slide making camera, or if the slide has been made by contact, these two spots will come on the cover-glass side, and so can be put on the mask under the cover glass. If the negative was the wrong way round in the reducing camera, the spots will have to go on the glass side of the slide itself.

It is generally recognised that it is advantageous at this stage to make quite sure before binding it up that the film of the slide and the mask are thoroughly dry. They may be made hot in front of the fire or over a lamp to be certain of this, and then bound up.

Cover glasses sufficient for all ordinary needs can be made from those slides which are failures. They may be left to soak in cold water for a day or two, and if they are then placed momentarily in hot water the emulsion will come off, and a scrub with a stiff brush, followed by a good rinse under the tap, will leave the glass quite clean.

To bind up a slide the commercial binding strips are the most convenient. A piece 3¼in. long should be moistened and laid gummed side upwards on the table. The slide and its cover glass should then be held together, and one edge pressed down on the exact centre of the strip. The strip is picked up in this way, and the slide turned over, so that the strip is lying on its uppermost edge, and then standing the slide on end on the table, the two overhanging edges of the strip are smoothed down and pressed into contact with the fingers, always stroking the strip downwards and not drawing it along the edge. When the gum on the strip is fairly dry the opposite edge may be bound in the same way, and then the other two remaining edges. When this has been done, and any finger marks or dirt cleaned off the outside of the slide, it is finished and ready to show in the lantern.



Collodion Emulsion Slides.

An almost forgotten process by which many of the finest slides ever made have been produced. Full working details for those who care to try it.

By R. Child Bayley.

TEN or fifteen years ago a very large proportion of the best lantern slides that were shown at our exhibitions were made by the collodio-bromide process, and although slides in every way as fine are made to-day on commercial lantern plates, there is no doubt that that process, now almost dropped out of sight, has never been excelled. I made a good many batches of collodion emulsion in those days, and a good many slides with it, and cannot help thinking that there are a good many workers even now who would find the process an interesting one, and would not grudge the little extra time and trouble, for which in return they not only get amusement, but a feeling that the slides made by it are far more their own production than can ever be the case with a ready-made lantern plate.

The process is not difficult, and calls for nothing much in the shape of apparatus or material. The following details should be sufficient guide for anyone anxious to try his hand. The materials are:

Pyroxyline	192 grains
Absolute alcohol (.805)	21 ounces
Pure sulphuric ether (.720)	19 ,,
Silver nitrate	320 grains
Ammonium bromide	208 ,,

with a little gelatine and chrome alum.



MINNEHAHA. BY OCTAVIUS C. WILMOT.

Awarded the Silver Plaque in the Advanced Workers' Competition just closed. The original of this picture is No. 74 at the Exhibition of the Royal Photographic Society.

The first step is to dissolve the ammonium bromide in a mixture of two ounces of alcohol and five drams of water, and the pyroxyline in a mixture of seven ounces of alcohol and seven of ether. The two solutions are then put in a bottle capable of holding about twice as much, and fitted with a sound cork. A little shaking soon effects solution. In the dark room 320 grains of silver nitrate are added, and the bottle is well shaken. It can then be securely wrapped up in brown paper to exclude daylight, and taken out of the room. For the next two or three days the packet containing the bottle should be given a vigorous shaking at intervals, say every morning and evening. After the lapse of that time the bottle is once more taken into the dark room, and its contents are poured out into a clean porcelain dish, which should be shut up in a light-tight cardboard box, and left, preferably in the open air, on account of the ether vapour, for twenty-four hours. At the end of that period the dish is taken into the dark room, and will be found to contain a leathery or jelly-like sheet, which is removed and cut up into a number of pieces with a strip of glass. These are put into a jar and covered with clean water. After half an hour's soaking the water is changed, and this is repeated five or six times, after which the emulsion is left to soak in water for twelve hours, again rinsed, and left for another twelve hours, and then put aside on some dry blotting paper in a cardboard box for a day or two. This will get rid of most of the washing water, and the emulsion will have become much harder. It only remains to redissolve it in a mixture of twelve ounces of alcohol and twelve of ether, which can be effected by shaking and putting on one side for a day or two. It is filtered through a plug of cotton-wool placed in a funnel and moistened with a little ether, and is then ready for coating on to the plates.

The operations thus briefly described do not occupy a great deal of time, but they require to be separated by intervals, first to allow the emulsion to "ripen," as it is called, then to let the solvents evaporate, next to ensure thorough washing, and finally fairly complete drying. None of these should be hurried, and there is no harm in allowing the times given to be exceeded, if this is convenient. The finished emulsion should be kept in a well corked bottle to prevent loss of the solvents by evaporation. It will keep any length of time in good condition, but should not, of course, be exposed to light. A cocoa tin forms a good light-tight container for the bottle.

Success in the preparation of the emulsion may be said to depend on two things—on the quality of the materials employed, and on the cleanliness and care with which the various stages are carried out. The chemicals should be got direct from a reliable firm of manufacturing chemists, and every vessel used thoroughly washed and dried beforehand. The emulsion, from the time when the silver nitrate is added, is sensitive to light, but except when it is actually on the plate in a thin layer, it seems to take very little harm from a good deal of light. A bright yellow light may be used in the dark room, and momentary exposure of the stock of emulsion even to daylight does no appreciable harm. For coating plates and developing, the same precautions should be taken as to light as would be done with ordinary lantern plates.

The coating of the plates may seem to be more difficult to unaccustomed hands than the making of the emulsion, but it is no very formidable task. The first thing to be done is to get the plates to coat. These may be spoiled lantern slides, of which most slide makers will have a sufficient supply. They are allowed to soak in cold water until a number are ready for cleaning, and are then put into boiling water until their coating dissolves off. A scrub with a stiff nail brush, soap, and warm water, followed by a plentiful rinsing, finishes the cleaning, and they may be put up in a rack to dry.



A Devonshire Pilot. By H. Marle.
Awarded a Bronze Medal in the Advanced Workers' Competition.

The use of the plates is much facilitated by giving them a substratum. For this purpose, a quarter of an ounce of gelatine is dissolved in half a pint of hot water, and twenty grains of chrome alum in another half-pint. The two are mixed together, and the dry glasses are rubbed over with this liquid with a tuft of cotton-wool, to get rid of any repellent action of the glass, then dipped in the warm solution, and put aside to dry. Several dozens can be treated in a quarter of an hour. The glasses when dry may be put in boxes and kept for use as required.

These glasses are coated with emulsion just as a negative is coated with varnish. In the dark room the plate is held in the left hand, on the tips of the outspread fingers, with one corner just touching the thumb. A pool of the emulsion is poured into the middle, and is caused to flow to each corner in succession, by tilting the plate, and finally poured off, when the fourth corner is reached, into a separate bottle. The plate is held vertically and rocked for a few moments, until the film is set, which it will do in less than half a minute, and it may then be put aside, either in a rack or flat, to dry. In coating the plate the emulsion should not be allowed to go quite up to the corner which touches the thumb, as if it does so it will probably flow on to the photographer's hand, and perchance up his sleeve. When the second bottle contains enough emulsion, it may be filtered back into the first bottle again for use.

Unlike gelatine, these plates may be dried by heat. If they are wanted at once, a dish may be filled with hot water and covered with a sheet of glass. On this glass the plate will dry in a couple of minutes or less, and may be used straightaway. The plates will keep in good order for a long time, but as the collodion film is very easily injured it is better only to make a few from time to time, as they may be required. The coated plates should be kept in a grooved plate box.

Collodion emulsion lantern plates are treated almost exactly like the commercial gelatine lantern plates made for warm tones.

The correct exposure must be found by trial, as different batches of the emulsion differ in speed, but it is much the same as that of a slow lantern plate. The collodion film is

too tender to bear rubbing, and so must be laid down exactly into position on the negative, and not slid about on it. A lantern slide printing frame is a convenience in such a case. In a daylight reducing apparatus very fine slides can be made on these plates, and this was the method by which most of the best work used to be produced.

The developer for collodio-bromide was almost always pyro with ammonium bromide and ammonium carbonate. My own slides were mostly made with a developer which contained in each ounce—

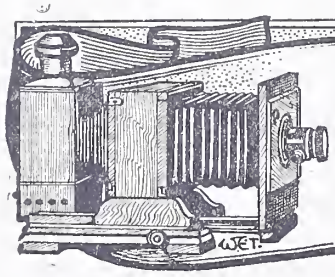
Pyro	8 grains
Ammonium bromide	1 grain
Ammonium carbonate	25 grains

or in some cases two minims of liquor ammonia in place of the carbonate. This gave a fine purple brown tone. The pyro was kept in stock solution with a little sulphite and citric acid.

As the collodion surface was repellent, it was usual to pour a few drops of alcohol on to the plate first, and then to wash that off under the tap until the surface no longer appeared greasy, when the plate was ready for the developer. Some workers added a little alcohol to the developer for the same purpose. In those days it was usual to hold the plate in the hand while developing it—a method which was certainly economical of developer, but most photographers now would no doubt prefer to adopt the usual plan of developing in a dish.

The film of a collodio-bromide plate is not very opaque, and it is easy, after a trial or two, to learn how far to carry development. Owing to the thin coating, it will be found that development, fixing, and washing are all very rapidly accomplished. A minute in the ordinary hypo bath is ample for fixing, and five minutes' washing under the tap gets rid of all trace of the hypo, and leaves us with the finished lantern slide, which may be dried by heat or left to dry spontaneously, whichever is preferred.

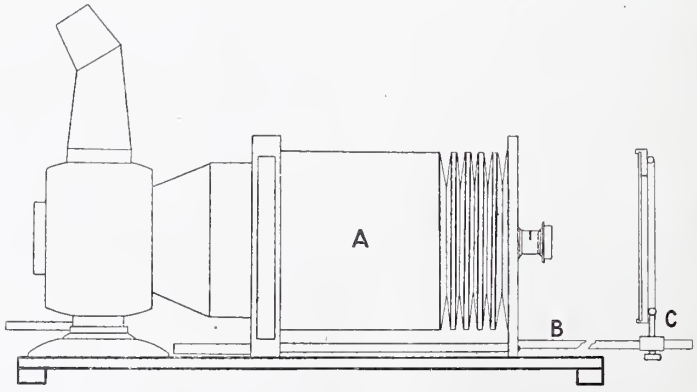
Anyone who is interested in photographic manipulations will find the making and use of collodio-bromide lantern plates a very interesting branch of his hobby. It is not in any sense a difficult one, while, as I said at starting, the results which can be obtained on the plates are equal to the finest that gelatine will yield. It is not costly, as the materials named will be found sufficient for a great many dozen lantern plates.



Slide Making with an Enlarging Lantern.

By E. H. Immingham. *Special to "Photography and Focus."*

THE arrangement shown in the illustration herewith may be found to be serviceable to other photographers beside the writer, who has used it successfully for a long time. The basis of the arrangement, in fact the whole of it, is an enlarger of the usual pattern, made to work with incandescent gas and fitted with a five and a half inch condenser. It is fitted with an R.R. lens, working at f/8, with a focus of 4½in., and formed, as such, a very efficient enlarger.



It occurred to me that it would be practicable to make lantern slides with it by the simple process of putting a lantern plate on the easel, and projecting a reduced instead of an enlarged image on to it. The difficulty was encountered, however, of extending the bellows of the enlarger far enough to focus a reduced image on the easel. To get over this the bellows were detached from the lantern end of the enlarger, they were coming unstuck from age and infirmity, which made things easier, and a cardboard boxlike extension was fitted, occupying three-fourths of the space originally occupied by the bellows. This cardboard extension is shown at A in the sketch.

The box left room for the bellows, which were attached to it; and the only difference was that when the lens of the enlarger was as near the negative as it would go, the bellows were closed up tightly, instead of being partly extended as before, while the box allowed more than three inches extra of extension, which proved to be more than sufficient.

This enabled me to make slides exactly as enlargements were made, bringing the lantern up close to the easel for the purpose. The slides so made, however, were often found to be not quite sharp; and after a consideration of all the circumstances, I was driven to the conclusion that this want of sharpness was due to vibration either of the enlarger or of the easel. These were not directly connected, and so a slight shake which would have no appreciable effect when an enlargement was being made might impair the critical definition one expects in a lantern slide.

After a little planning, a round wooden rod B was glued and driven tightly into a hole in the front of the enlarger, and allowed to project some seven or eight inches. This, when slide making is in progress, carries a retort stand ring C, which can be clamped at any distance from the lens, and this in its turn has attached to it a little piece of wood with grooves into which the lantern plate may be slipped. In the centre of this wood is a circular hole 2¾in. diameter, coinciding with the opening in the ring of the retort-stand fitting. The whole arrangement is then supported on the base of the enlarger, which does not have to be moved at all. For focussing, a piece of fine ground glass is slipped into the grooves, and the image focussed on it in the ordinary way, by sliding the arrangement to and fro on the bar, and by drawing the bellows in front. When this has been done, the fine focussing is accomplished by means of a focussing glass applied at the back through the ring and the hole in the wood, which were left for that purpose. It is best only to do this after the ring has been clamped to the rod, and to do the fine focussing entirely with the bellows.



Lantern Slides with Warm Tones.

By Rev. H. O. Fenton. *Special to "Photography and Focus."*

THE time has gone when the hand-painted slide of gaudy colours and cotton-wool skies represented the *ultima Thule* of a lanternist's ambition. Then there came what might be termed the Renaissance in slide-making, when it was discovered that the ordinary black colour could be modified by the use of toning agents such as copper, uranium, or vanadium. Beautiful tones were produced by these methods, but their permanency has been questioned from time to time. And now that it is becoming more generally known that permanent tones, superior to any produced by after-treatment, can be obtained in the mere act of developing, this latter method is naturally increasing in favour. It is also a process which brings out the full value of the original negative. Neither is there much difficulty in it; and if the directions I am giving are carefully followed, success should be certain.

At the outset it should be stated that these warm tones are the result of what would be, for a black slide, considerable over-exposure, which is counterbalanced by a large quantity of restrainer in the developer. The actual colour is determined by the length of exposure; the longer the exposure the warmer the colour.

Let me give an example. Using Paget slow lantern plates, which I have always found extremely satisfactory, with a negative of average density, an exposure of 20s. at one foot from an incandescent burner will give a cold sepia; 30s. to 35s. will yield a rich brown; and 45s. will produce a tone with a shade of yellow which is very suitable for sunshine and harvest effects.

It is difficult to give figures approximate to these exposures when reducing or enlarging in a lantern, since there is such variety in aperture of lens and strength of illuminant, but as a basis to work upon an exposure of ten times the above may be tried. A box of plates used solely for experiments, with the results carefully noted for reference, will prove an excellent investment. Supposing a plate be exposed in three strips with the relative exposures given above, and developed, we shall have three distinct colours on the plate. The colour that is desired is then selected, or a fresh experiment made until the colour wanted is reached, disregarding for the moment the question of correct density. Say that with the negative in use the right colour is got with an exposure of 35s., one knows that with the same exposure at the same distance from the light the same colour can be got from all negatives of about the same density. This is a first principle, and one that must be firmly grasped, for events are certain to turn up which will shake one's belief in it.

Having got the required colour, the next thing is to get correct density, and this is perbaps the rock on which one may suffer shipwreck, for the slides lose a great deal of density in the fixing bath. And here again a few experiments will be of much service. A reliable developer is the following:

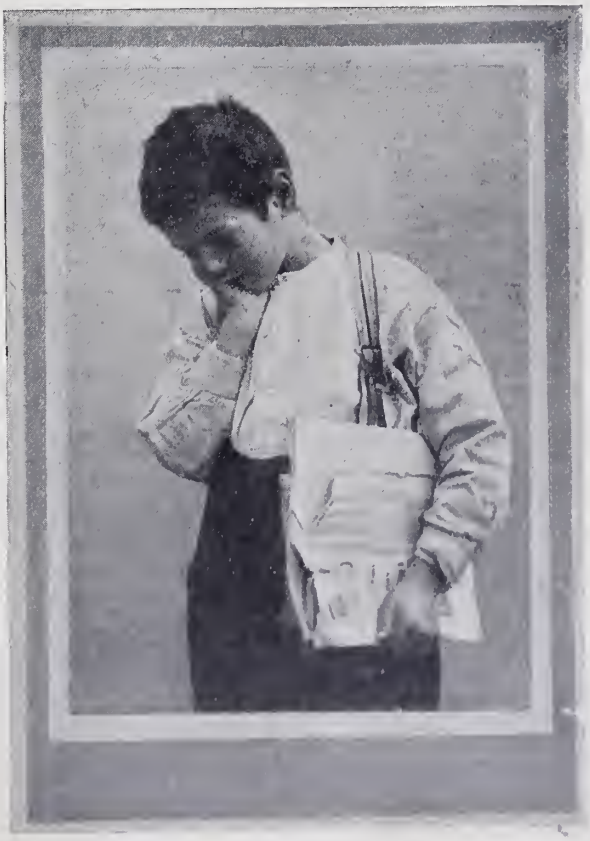
Ammonium bromide (10%)	50	minims
Ammonium carbonate (10%)	50	,,
Liquor ammonia (.880)	2.5	,,
Pyro	2	grains
Water to	2	ounces

The easiest way of compounding this is to get the chemist to mix up one ounce of ammonium bromide and one ounce of ammonium carbonate and half an ounce of liquor ammonia. each with water, making the total of each solution up to ten ounces. Distilled water must be used, otherwise there will be a precipitate in at least two of the solutions. For use we take fifty minims of each and make the whole up to two ounces with water. A convenient way of adding the pyro is to use Burroughs, Wellcome, and Co.'s tabloids, each of which contains two grains. Personally, I use the crystallised form of pyro, measuring it out with a scoop that holds two grains. It is a great thing to have the pyro fresh. If it is kept in solution it must be preserved from oxidation in the usual manner, preferably with metabisulphite, though I prefer to use it freshly made.

Having made an exposure and mixed the developer, if the photographer is the possessor of a diamond he may cut the plate into three strips for experimenting for the correct density. If he has not a diamond, it will be worth while to use three plates. The time is noted by a watch or clock, and the developer poured on.

I always brush over the face of the plate with a mop, which I keep solely for that purpose, and which has been standing ready in the graduated measure containing the developer. This mop removes any air bells that may be clinging to the film. I also always dust the negative with a broad brush before putting the lantern plate in contact with it. Trifles these, but they tend towards that technical excellence which is necessary in a slide which is to be magnified so greatly.

As a trial one strip or plate may be developed for four minutes, the next for five, and the last for six. Then they are transferred, without washing, direct into the hypo bath. This may consist of three ounces



No Luck. *By Miss Etta Shankland.*

of hypo to a pint of water, and should not have anything added to it. It must not be used twice, so it is better to put just sufficient into a small dish and throw it away after one plate has been fixed in it. The final tone and density are not arrived at till the plate is dry.

The time which the most satisfactory strip took in development is noted for future guidance. It is necessary, however, to remember that an increase in temperature shortens the time of development.

Yellow light, and plenty of it, may be used in these operations. One's eye very quickly gets used to judging the correct depth to which development should be carried, apart from the timing method.

Should a slide be found too dense it may be very easily reduced by the hypo and ferricyanide reducer. It is quite worth remembering that potassium ferricyanide will keep in solution (*pace* all textbooks to the contrary) if it be mixed with double its weight of kitchen salt. I have had a bottle of it in use for months. Ammonium persulphate seems to have no effect on a slide developed by the formula given.

If a slide be very thin, it may be bleached by an ordinary mercury intensifier, and then sulphided in the same way as a bromide print, the amount of intensification by this process being very marked. I have never been successful with the bleachers ordinarily used in sulphiding bromides.

Since writing the above article I had occasion to use the last four plates in a box, and found I had run out of the ammonium carbonate solution. So I tried the following:

Ammonium bromide (10%)	120 minims
Liquor ammonia (.880, 5%)	50 ,,
Pyro	2 grains
Water to	2 ounces

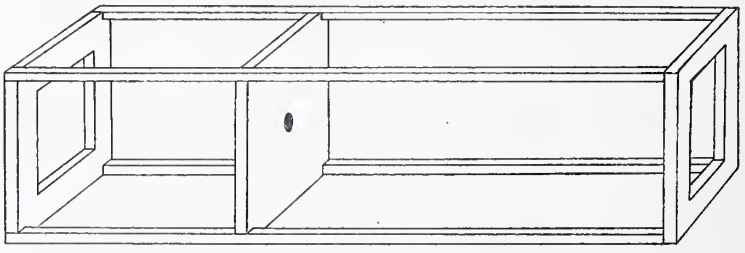
The exposure was forty seconds one foot from an incandescent burner, and the development five minutes at 60° F., with the result that I got four of the best slides I have ever made, of a rich brown colour.

How I Made a Fixed Focus Lantern Slide Camera.

By "Scot." *Special to "Photography and Focus."*

A FIXED focus camera for making lantern slides by reduction is not at all a difficult piece of apparatus to construct; and for anyone who sticks pretty closely to one fixed size of negative it is a very great convenience, since slides may be made in it as easily and almost as quickly as by contact. It is not much use giving the actual dimensions, as these are governed of necessity by the lens employed, but the method of determining them will be set forth in detail, the actual calculations being those made for the writer's own apparatus.

The lens used was a single achromatic one of 6in. focus, which was bought, unmounted, for three shillings. It was about an inch and a quarter in diameter, and was mounted by being placed in a hole of that size cut in a piece of ½in. deal, which was cut to 5½in. × 4½in. The inside of the hole was blackened (with shoe blacking, as that happened to be handiest), and the lens retained in position by two cardboard rings. A piece of ferrotype with a hole a quarter of an inch in diameter was fastened to one side of the wood to act as a stop. When this was done, the lens was ready for measuring.



The simplest way of doing this is to attach the board to the front of an ordinary camera which has had its lens removed, and then to focus something down to the required size, and measure up the distances. As a 5 × 4 negative was to be got upon a lantern plate in the case in point, a piece of white card 5 × 4 was fastened to the wall, and focussed on the ground-glass, the camera being moved until the 5in. side of the card measured exactly 3⅛in. on the ground-glass. A piece of wood to act as a template was then cut so that it exactly fitted between the front of the board carrying the lens and the 5 × 4 piece of card; it proved to be approximately 15½in. in length. The camera extension was then measured as carefully as possible, and found to be 9⅝in.

The next step was to make a little frame 5½in. × 4½in. externally, to take a plate 5 × 4, which could be fastened into it by turn-buttons. This is better than making a groove to hold the negative, as in carrying about the camera with the negative in it there is always a chance that the negative might slide out. The two distances given above, from the card to the front of the lens board and from the board to the ground-glass, total up to 25⅛in. To allow for subsequent adjustment, four wooden sticks were taken, a quarter of an inch square, each exactly 24in. long, and the four corners of the lens board having been cut away for a quarter of an inch to take the sticks, the ends of the sticks were fastened to the negative frame with four French nails and glue, and then, a waste negative having been put in the frame, the lens board was carefully adjusted between the four sticks, so that each corner of the negative was exactly the same distance from the lens board, the distance being measured with the 15½in. template made as above. A nail was driven through each stick into the lens board when the position was found, to prevent further movement. A second board of ½in. deal, with an opening about 3½in. square in the centre of it, should have its corners cut away, and the loose ends of the sticks nailed to it in the same way, taking care that the end of each stick comes exactly flush with the face of the board. The sticks must all be of precisely the same length to ensure parallelism.

The appearance of the apparatus at this stage can be gathered from fig. 1. It must now receive a coating of dead black, taking care, of course, not to splash the lens, and then is ready to be covered in. For this purpose a sheet of cardboard 24in. long and 22⅛in. wide will be required. Along it must be made three knife cuts, extending about halfway through it, to allow it to bend easily, the cuts dividing it into four spaces, each 24in. long. One should be made exactly in the centre, and one a full 5½in. and the other a full 4½in. away from the centre one. About a sixteenth of an inch beyond the exact dimensions should be given, to allow of the folding.

The interior of the card must have a coating of dead black, which should be allowed to dry, and the sticks and edges of frame and boards being glued, the card may be folded round so as to enclose the whole arrangement, and a series of tacks put in along the edges of both boards and of the frame.

A piece of black glazed lining should then have a coating of thin hot glue, and be neatly laid all over the outside, turning it down at the two ends, by way of finish. This will bind the whole very firmly together, and add considerably to the strength of the camera. When this is dry, we can proceed with the final stage, which is the construction of the plate holder.

The end which carries the lantern plate is left until all the rest is finished, because, no matter how carefully the measurements were made originally, it is best not to place entire reliance upon them for the final focus, but to do this by actual trial. The back itself was made of a quarter-plate printing frame, with two pieces of thin wood 3¼in. × ½in. inserted, one at each end, to reduce it to the size of a lantern plate. As the back does not require to be hinged, a fresh back fitted with a pad of thick black cloth so as to be light-tight is provided. On the front of the frame is screwed another frame of ¾in. deal, so that the front of a lantern plate when in it is not quite 9⅝in. from the lens board, to allow for adjustment.

The final operation is to fix up the body of the camera with a negative in it, which negative is illuminated from behind. An old plate with scratches through the film is better than a negative, as the scratches are more easily seen. A piece of fine ground-glass is put into the printing frame, and this is laid upon the board at the opposite end of the camera. A number of pieces of card 5½ × 4½ each, with a 3½in. square hole should be provided, and these should be introduced between the board and the frame until the separation is reached which gives the best possible definition. When this has been secured, the cards should all be glued together, and glued to the board. When dry, the frame should once more be placed upon them to make quite sure that the gluing has not affected the focussing, and is adjusted in position, so that the image of the negative comes exactly in the right place on the lantern plate. The frame may be secured there with glue. The end can then be neatly covered with lining and the camera is finished.

To use it, a negative is put in at one end, and the whole contraption taken into the darkroom, where a lantern plate is put into the printing frame, and held in position with the back and springs. A focussing cloth is thrown over the negative end, and the camera carried out into the open air and stood up, negative end uppermost. The exposure is made by removing and replacing the focussing cloth.



Roses. *By J. R. Richardson.*

Lantern Slide Competition. Open to All Readers.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal, and four Certificates in each Class.

Classes.

A. Landscape with Figures (including seascape, etc.)

B. Landscape without Figures (including seascape, etc.)

C. Architecture.

D. Portraits and Figure Subjects.

E. Still Life.

F. Scientific Subjects.

Rules.

(1) All are open to amateur and professional without any restrictions. All slides must measure 3¼in. by 3¼in.

(2) One silver plaque, one bronze plaque, one bronze medal, and four certificates are offered in each class.

(3) All slides which take any awards will become the property of *Photography and Focus*, and will be sent round amongst the societies and other such associations as apply for the loan of them. Any other slides may be selected by us for circulation in this manner, and will be paid for at the rate of half-a-crown each.

(4) Competitors may send any number of slides in any class, and may be recorded as winning any number of awards, but no competitor will actually receive in the competition more than one silver plaque, one bronze plaque, one bronze medal, and one certificate, on which all his awards will be recorded.

(5) Every slide must bear the competitor's name, its title, and its class. With the slides must be sent an envelope containing the name and the full address of the competitor, a list of the titles of all the slides he is sending in, and the class in which each is entered, together with a stamped and addressed label (not loose stamps) if the slides are to be returned (if unsuccessful). But under no circumstances can the editor or the publishers accept any responsibility for slides sent in for competition or for their return, nor can slides be returned which are not *accompanied by* the stamps as above.

(6) All carriage or postage must be paid by the competitor.

(7) The last day for receiving is Monday, October 18th. The slides must be addressed "Slide Competition, the Editor, *Photography and Focus*, 20, Tudor Street, London, E.C."

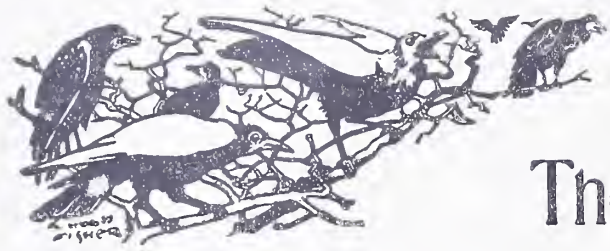
(8) Not more than one slide from a negative can be admitted, nor may any slide compete which has before won an award.

Materials for the Oil and Bromoil Processes.

BY the publication of M. Demachy's book upon the oil process, and by laying themselves out to discover and to stock precisely those materials, brushes, etc., which are most suitable for the purpose, the firm of James A. Sinclair and Co., Ltd., of 54, Haymarket, London, S.W., has earned the gratitude of all those who are interested in either oil or bromoil. The extent to which their business in these goods has extended may perhaps be gathered from the fact that the two page leaflet which formed their first "oil" price list has now expanded to one of eight pages, and forms the most complete list of appliances and materials for these kindred printing methods which is to be obtained.

Amongst other signs of their activity is the inauguration of a competition for such prints, with prizes ranging from £1 to £10, the judges being Messrs. E. T. Holding, Furley Lewis, and J. C. S. Mummery. Entry forms for this are sent out with each pot or tube of Sinclair's permanent oil pigments, with which the winning prints have to be made, and entries have to be in by November 14th. The closing date given on the entry forms is October 31st, but this has been extended to avoid interfering with other competitions.

The pigments for the process are now supplied in metal collapsable tubes, which form a convenient vehicle for the colour, since it is all ready for immediate use. For thinning these colours Roberson's medium is recommended.



The Week's Meetings.

MONDAY, OCTOBER 4TH.

Kinning Park C.C. Committee Meeting.
South London P.S. "Thunderstorms and a Camera." H. Wilkie.
Royal (Exhibition). "San Marino, the Pigmy Republic." Rev. T. T. Norgate.
Bowes Park & D.P.S. Conversazione.
Bradford P.S. Exhibition.

TUESDAY, OCTOBER 5TH.

Birmingham P.S. Exhibition.
Hackney P.S. Members' Lantern Slides.
Glasgow Southern P.A. "Our Hobby and Critique of Prints." R. Marshall.
Otley & D.C. & A.S. "River Derwent." G. Hepworth.
Halifax C.C. "Basiliconthaumaturgical Views." J. I. Learoyd.
Sheffield P.S. "Holidays with the Camera." F. Atkinson.
Manchester A.P.S. "From Print to Block." J. E. Hadfield.

WEDNESDAY, OCTOBER 6TH.

Worthing C.C. Littlehampton.

THURSDAY, OCTOBER 7TH.

Aston P.S. Short Papers.
Richmond C.C. Opening of Session.
Liverpool A.P.A. "Control." T. Lee Syms.
Watford C.C. "An Hour with the Birds." W. Bickerton.
Royal (Exhibition). "Saints, Benedictines, etc." E. W. H. Piper.

SATURDAY, OCTOBER 9TH.

Glasgow S.P.A. Drumpellier.
Liverpool A.P.A. "Mickle-Trafford." P. A. Cox.

MONDAY, OCTOBER 11TH.

Attercliffe P.S. "Enlarging." G. Walton.
South London P.S. "Home Portraiture." F. W. Memory.
Leeds C.C. "Evolution of the Landscape." H. Barrett.
Marylebone C.C. "Ramble in the Ardennes." H. G Bailey.
Walsall P.S. "Tips for Tyros." W. T. Comer.
Bradford P.S. "Bromoil." W. H. Womersley.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

SUBSCRIPTION.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
Twelve Months	6	6	Twelve Months	10	10
Six Months	3	3	Six Months ..	5	5
Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

REMITTANCES.—Postal Orders, Cheques, etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

EDITORIAL NOTICES.

ADDRESS.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.



MAKING THE BEST OF IT

A Series of Suggestions for Making Good Prints from Poor Negatives

By Chas. M. Lewis. (Special to "Photography & Focus.")

Powdery Deposits.

IN one sense a powdery deposit on a negative is not a fault to be made the best of, since its presence does not make any difference to the quality of the print. Still it makes the negative look very dirty, and suggests careless treatment, so it may be well to show how to remedy it.

The powdery deposit oftenest seen is due to the use of hard water for washing the plates. If, when the washing is completed, the negative is held under the tap and its surface is gently rubbed with a little lump of cotton wool this deposit will be removed, and the negative on drying will be found to be quite clean. If it is allowed to dry on, it is not easily removed, but in such a case the negative may be placed for a few minutes in dilute hydrochloric acid, one part of acid to thirty parts of water, and then gently rubbed under the tap.

There is another deposit sometimes to be seen on the negatives of very careless workers, which is not so harmless. It is hypo, due to the washing having been altogether insufficient. As soon as this is noticed, if the negative is of any value at all, it should be put into a fresh hypo bath for a quarter of an hour, and then be properly washed. If much hypo is left in the film it may crystallise out, and in that case the negative must be looked upon as ruined.



A Fisher Maid. *By Chas. F. Bailey.*

Black Spots.

THE black spots, which are due to damp during printing on P.O.P., are dealt with separately; those spots at present referred to originate at the time the negative is being made. Their commonest cause is to be found in undissolved particles of the developing substance in the developer.

Undissolved metol is a very frequent sinner in this respect. Spots which have their origin in this generally have a tailed or comet-like shape, which is characteristic and easily recognised. Chemical dust settling on the plate at any time before it is dry may also cause them, and mere contact with bare metal of some kind while the plate is in the hypo will lead to a similar defect.

There is no remedy for them. The material of which they are composed is the same as that of the image in the plate, and they go right down into the film, so that nothing that we can apply will touch the spots without affecting the image. A clever retoucher will cut them out with the point of a knife, but it is hardly an operation to recommend to the amateur, and the simplest course, therefore, is to let them remain and to touch them out on the print.

Uneven Density.

SOME negatives vary in density from one side to the other, owing to some peculiarity in the development, or, very rarely, to a defective plate. Others are dense in the middle and thin at the ends, or *vice versâ*. These defects seem to be due in great measure to the use of lenses without hoods, and to reflections from the sides of the camera.

When one end of a negative is denser than the other, this can be remedied by shading during printing. A very effective way is to place the printing frame on the ground so that it lies across the edge of the shadow of a wall or house, so that as the sun moves round, the shadow will gradually go off (or on) the negative. As soon as it has travelled across, the frame is moved a little and the operation repeated. A very even and perfect gradation or shading can be got in this way with very little trouble.

When there are several negatives to be printed which suffer from thin edges or thin centres, the defect may be entirely counteracted by taking a little trouble. Going into the darkroom a plate is taken and exposed for a few seconds at about a yard from a candle, shading it with a continually moving card, as may be required. It is then developed, fixed, washed, and dried. It is quite easy in this way to make a negative with deposit in the centre shading away to clear glass at the ends, or *vice versâ*, as the case may require. After one or two trials what is wanted will be obtained, and a negative made which, when put into the printing frame with the defective negative underneath it, will supply the defects of the latter, and in this way enable the photographer to obtain a print which will show no signs of the uneven density from which the negative itself was suffering.

As this fault is not a constant one, showing itself only when the plate is under-exposed, and not otherwise, the adoption of a simple device like this will enable a camera and lens to be used that, without it, might be discarded. The shaded negatives may be varnished to protect them, and kept for use whenever they are required.

(*To be continued.*)

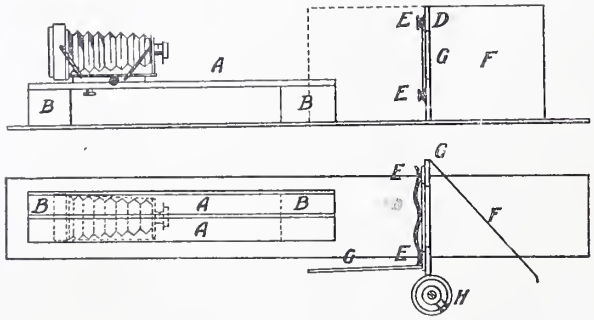


Lantern Slides by Reduction.

BY E. HUGHES. *Special to "Photography and Focus."*

THE process of making lantern slides by reduction, which includes at times making them by enlargement, bull though it seem, allows the selection of any part of the negative to form the full-sized image on the slide, and also allows slides to be made from negatives of any size. In fact, this method is compulsory with all negatives larger than $3\frac{1}{2} \times 2\frac{1}{2}$in., if practically the whole of the negative is to be properly shown; for lantern slides can only be made by contact from quarter-plates if the negatives have been made on a specially small scale for the purpose, or at the cost of leaving out some part of the picture.

Let me first describe the arrangement which I myself have used now for several years, and find to be all that can be desired. It can be made at home, or a carpenter will knock it up for two or three shillings. In my own case, it is constructed to make slides from half-plate negatives, but it can be used for anything up to whole-plate. The first part to be made is the support for the camera A, which consists of



two runners fastened to a block BB at each end, with a space between them in which the tripod screw travels. Along the outer edge of one runner is a fillet against which the baseboard of the camera travels, so as to keep the camera always in line. D is a board with an opening $8\frac{1}{2} \times 6\frac{1}{2}$in., firmly fixed at right angles to the direction of the camera. On the face of it it carries two printing-frame springs and their fastenings—one just above and one just below the opening. A piece of thin wood, like the carrier of a dark slide, 10×8in. outside, and with a half-plate opening provided with catch buttons to hold the negative in it, lies flat on the face of this board, and is held against it by the springs, which allow the negative to be tilted or adjusted, so that the part which is wanted on the slide can be got quite central. Behind the board D is another board F, which is hinged to D at one end. The side of this next D is covered with a sheet of fine white Bristol board, which may be attached by drawing-pins. G is another board at right angles to D to keep the light of the lamp H from reaching the lens. In my case it is a fixture, but if I were making the apparatus again, I should omit it, and put up a piece of cardboard when necessary, as it is in the way when the negative is being adjusted on D.

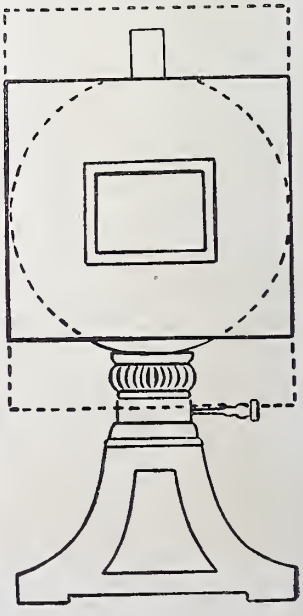
The camera used in this apparatus is an ordinary quarter-plate one with a cheap rectilinear lens—in fact, it is all that is left of a very old-fashioned hand camera. The illuminant is a circular wick table lamp, which is shown in position at H.

Slide-making by reduction with such a piece of apparatus as this is very much simplified, and a great deal of labour is saved. The procedure I usually adopt is the following: The first thing is to decide what portion of the negative is to appear on the slide; and, having done this, a mask of black paper is cut approximately to that size, and attached to the glass side of the negative with a drop of gum. There is no need to cut the mask as carefully as if it were wanted for printing, as it is only a rough guide to centring the picture, and also as a protection against a lot of scattered light in the camera.

The negative is then put in the carrier. This is put on D and fastened by the springs, F is opened out until it makes an angle of a little less than 45° with D, the camera is drawn back as far as it will go on the runners, and the negative is focussed. This will show the image as a little patch on the ground-glass, and as this is provided with diagonal lines crossing exactly in the middle, it is easy to slide the negative carrier about under the springs until this little image is exactly in the centre of the ground-glass. When this is so, there is no need to touch the negative again, and the camera may be slid along the runners, and the picture focussed until it is seen to be the required size and sharp. It is then clamped by means of the tripod screw, and is ready for exposure.

The most convenient form of illuminant I have found to be an oil lamp, but a standard incandescent gas burner would no doubt give a good deal more light, and so reduce the exposures. I have used an enlarging lantern with its condenser, but without a lens, putting it at H, and allowing it to throw a disc of light on the card at F; but the lamp answers just as well, and is very little trouble. I see no reason why instead of the lamp or gas burner a few inches of magnesium ribbon should not be burned in the same place for exposure purposes.

Unless there is some direct source of light which can shine on to the lens in the camera, there is no need to cover in the space between the negative and the lens; but the latter must be protected from the rays from the lamp. A good plan would be to make a kind of bottomless and endless box which could be placed over the intervening space, when all the arrangements had been made, so that the lens looked down a kind of tunnel. The exposure may be made with the lens cap, or if the lens is too much covered in for the cap to be accessible, a sheet of card may be interposed between the lamp and F, and removed when the exposure is to be begun.



The exposures with this apparatus depend, of course, on the plate employed, the light, the negative, degree of reduction, etc. For a good brown colour, the exposure when a half-plate is reduced to lantern size is generally something less than twenty



BURGTOR, ROTHENBURG o/T.

The original of this picture is No. 136 at the Exhibition of the Royal Photographic Society.

BY JOHN H. GEAR, F.R.P.S.

minutes, using f/11 and a lamp with a ground-glass globe as well as a chimney. With incandescent gas this could no doubt be very considerably reduced.

The slide maker is by no means limited to the apparatus just described. Any arrangement which illuminates a negative evenly, and supports a camera in front of it, may be employed. Thus, those who have a dark room fitted for daylight enlarging, with an opening in which the negative is placed, and a reflector outside to give a good diffused light behind it, may use that, merely putting the camera up in front of it, and focussing it down to the desired size.

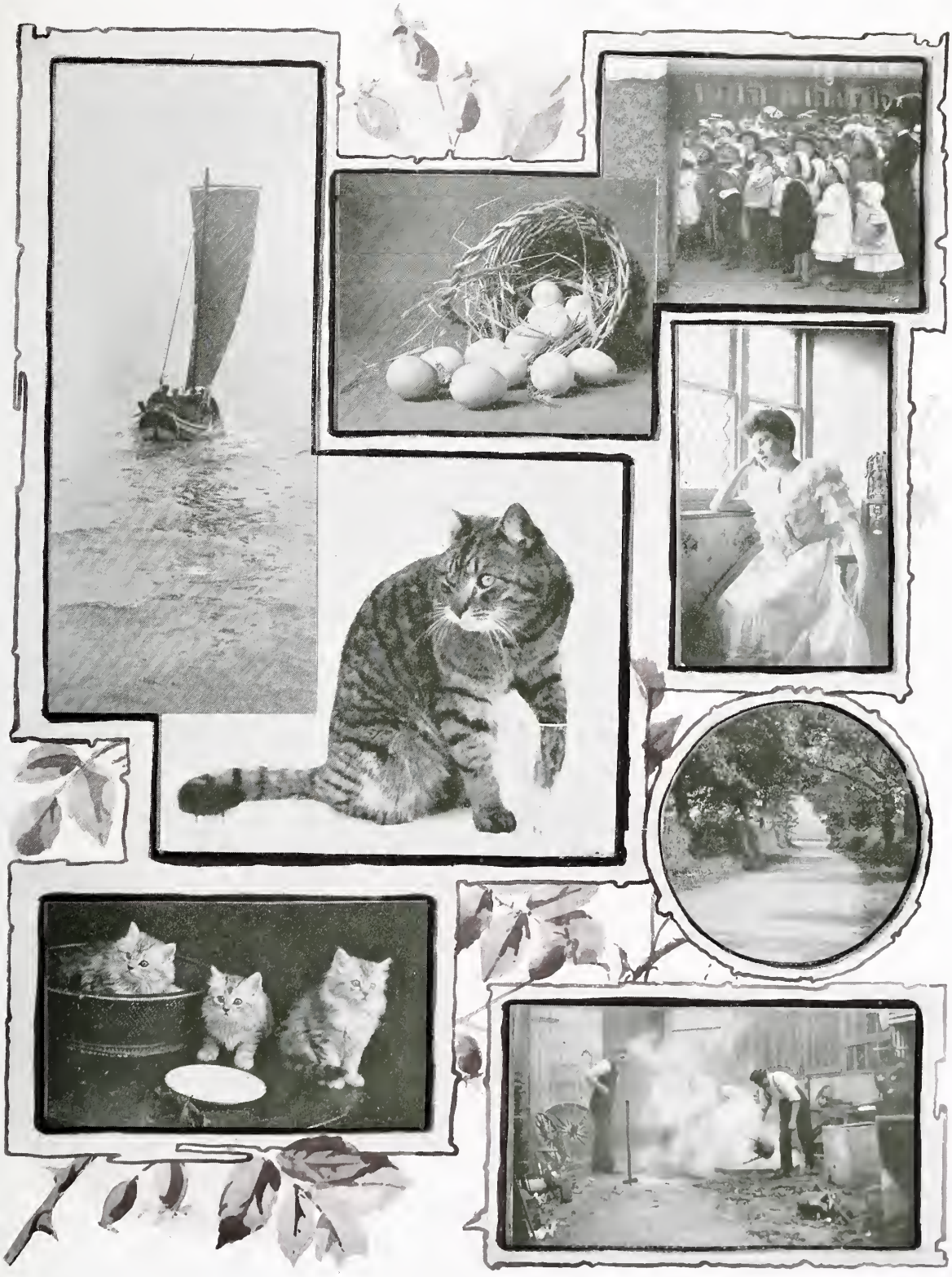
Then, again, the method of illuminating the negative by light reflected from a white card, although this cannot be beaten for evenness of illumination, is by no means a necessity. The light may be diffused by ground-glass or by tissue paper, or both. When the light is very concentrated, as in the case of magnesium ribbon, at least two layers of the diffusing material will be necessary, and these must be, not in contact, but separated by at least an inch or more from each other, and from the negative. Two sheets of ground-glass fixed up in this way will diffuse the light of a lamp sufficiently to illuminate a half-plate negative, or if the distances are increased to three or four inches, a whole-plate can be illuminated.

The extremely simple device shown in the sketch on page 280 has proved an excellent method of illuminating a quarter-plate negative for slide-making; and it has the advantage that it can be made in a few minutes, and the negative and illuminant can be moved about into any desired position. It is simply a square cardboard frame, which can be slipped over the ground-glass globe of a lamp, which it fits well enough to prevent the frame from slipping about. On one side the card is extended upwards and downwards to hide the brilliantly illuminated fittings and chimney of the lamp, as shown by the dotted line; and in the middle of this side there is an opening $4\frac{1}{4} \times 3\frac{1}{4}$in. provided with a little wooden frame into which the negative can be slipped. The frame must be thick enough for the negative to be at least half an inch from the ground surface of the globe. This arrangement has shown itself capable of lighting a quarter-plate quite evenly. Probably, by making the frame deeper, so as to carry the negative a little further away, and interposing a sheet of tracing paper as a diffuser, between the globe and the plate, a larger negative could be illuminated with equal success

In addition to these there are quite a number of different patterns of slide-making apparatus on the market. Some of these are for daylight use, and are on the fixed focus principle. These make slide-making by reduction very simple, but limit the user to one fixed degree of reduction; and on the whole a focussing arrangement is to be preferred. As I trust I have shown, such an apparatus can be fixed up comparatively simply.



By Thomas Carlyle. *Awarded a Bronze Plaque in the Advanced Workers' Competition.*



Some Prints from Recent Competitions.

Away on the Briny. By Arthur Mann.

The Reward of Early Rising. By Henry J. Bullivant.

More Ways than One. By W. J. Sayer.

Three Little Maids. By L. R. Goodyer.

Th Best Show on Earth. By F. D. Arundel.

Day Dreams. By Miss Aubrey Mitchell.

Morning Sunshine. By H. Smith.

Bonding the Wheel. By S. F. Jones.



ANTRAIGUES. BY JAMES A. SINCLAIR, F.R.P.S.

The original of this picture is No. 95 at the Exhibition of the Royal Photographic Society.

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The Linked Ring "Smoker" is to be held on October 5th.

The Preston Pictorial Photographic Society meets in Friargate every Friday evening.

The Blackburn and District Camera Club issues a monthly magazine, "The Camera Record."

Classes in Photography are held at the Oliver Goldsmith School, Peckham Road, S.E., on Tuesday and Thursday evenings. Full particulars can be obtained on application to the secretary at the school.

Sheffield and Hallamshire Photographic Society. Mr. Fred Lowe having resigned, Mr. Charles H. Parker, of 339, Psalter Lane, Ecclesall, Sheffield, has been elected honorary secretary and treasurer.

The Sheffield Photographic Society opened the session with a conversazione on the 21st ult., at which slides of the Highlands and Islands of Scotland, by the late John A. Hodges, were shown. The membership of the society now stands at 180.

Capetown Photographic Society. Mr. Mudie Thomson, of P.O., Box 821, Capetown, is now the honorary secretary, in the place of Mr. A. J. Fuller, who has resigned after holding the office for seventeen years.

Stolen Cameras. A Nydia (No. 200), changing box (226), Homocentric lens (69003) in black leather case, and a Stereolette camera were stolen on Wednesday in last week from a commercial brougham. Anyone to whom any is offered for sale should communicate with Mr. W. Gordon Gould, at 83, Hatton Garden, London, E.C.

A Correction. Messrs. Johnson and Sons ask us to point out that they regret that they overlooked a printer's error in their advertisement in *Photography and Focus* of the 21st ult., by which instead of "Scaloids Compressed Photographic Tablets," their advertisement read "Scaloids Compressed Photographic Tabloids." "Tabloids" is the registered trade name of Messrs. Burroughs, Wellcome, and Co.

Phosphate Lantern Slides. At the meeting of the Marylebone Camera Club on the 20th inst. Mr. H. G. Bailey exhibited slides on the Paget Phosphate Lantern Plates. He drew attention to their fine grain, clearness, and latitude of exposure. When a negative with a great deal of contrast was used he found that there was a slight tendency to double tones. The slides on these plates were remarkably colder when dry than they were while wet.

The Slide Competition closes on October 18th. The rules are given on page 277 this week.

In the Ensign Film Competition for the month the prize camera was won by Mr. H. C. Leat, of 2, Richmond Street, Totterdown, Bristol.

Before actinometers were used, writes Mr. Sutcliffe in the "Yorkshire Weekly Post," the cleverest guessers made the best negatives.

An interesting booklet describing the Wratten products that are to be on exhibition at the New Gallery has been issued by Messrs. Wratten and Wainwright, Ltd., of Croydon.

Photography has been used in a high-speed telegraph instrument to turn the dot and dash signals into a legible image with Roman letters. The apparatus employs rapid bromide paper.

Australian Kodak, Ltd. The first ten months of this company show a manufacturing profit of £10,965, and an income from investments of £11,073. Dividends amounting to 1s. 6d. per share are being paid.

The Glasgow Photographic Art Circle has an exhibition of the work of Mr. G. L. A. Blair at the rooms of the Glasgow Southern Photographic Association, 169, Eglinton Street, from the 6th-9th October from 7.30 to 10, and from 4 till 10 on Saturday.

The Photographic Section of the Preston Scientific Society. The new officials are: Chairman, T. C. Chandler; lantern slide secretary, R. Lewty; portfolio secretary, W. Taylor; delegates to the R.P.S. and L. and C.P.U., T. C. Chandler and R. Lewty; honorary secretary, R. F. Hind, The Limes, Powis Road, Ashton-on-Ribble.

The Duke's Daguerreotype.

THE "Evening News" in "Talks about Old London" reports a conversation with August Reading, an old man of 97. He says he worked for a daguerreotypist, a Scot named Henderson, who had a place near Temple Bar. "I found he was making more than £10 a day at the business. At that time a daguerreotype was the only kind of photograph there was, and Henderson was one of the only two in the business in London. For a picture about the size of a postage stamp he charged 5s.

"I kept my eyes open, and after a bit I was as good as he was at the trade. Once I went to Apsley House by order and took pictures of the Duke of Wellington and his friends. I remember seeing Lord Palmerston and Lord Fitzhardinge amongst them.

"The apparatus I used cost £50. At that time there was only one shop in London which sold such things. All the chemicals were very dear, and you had to make up all your own solutions.

"The Duke paid £5 for his picture, but we did well over it. We made and sold hundreds of copies at a guinea each. There must still be many of them about somewhere.

Photographic Dyeing. Messrs. Persoz and Grueve have been experimenting in dyeing fibres by forming insoluble coloured substances within their tissues by means of light action. The "Scientific American" gives a brief summary of the results so far obtained.

Autumn Pictures. "Camera," in the "Glasgow Evening Times," reminds us that now that autumn is upon us the photographic day will be at an end for rapid exposures between three and four o'clock in the afternoon. From that time onwards daylight goes at a rapid rate, and in about another hour even slow exposures will not be satisfactory. In fact, from now onwards, the best part of the day for photographic work is between 10 a.m. and 2 p.m.

The City of Belfast Y.M.C.A. Camera Club, at its annual meeting, elected the following officers: President, A. G. Cromie; vice-presidents, W. Strain, W. Downing, T. H. M'Murray, D. W. Elliott, R. Hamilton, A. R. Hogg, W. M'Lean, H. Cochrane, jun., H. Hill, and R. G. Moffett; council, J. B. Anderson, J. M. Busby, J. S. Gill, D. J. Hogg, T. B. Scott, S. M'Laughlin, H. Reid, and G. Wishart; honorary secretary, Hugh Crawford; honorary assistant secretary, S. Stanfield; honorary lanternist, Alf. George.

Weather

"OREXIS," writing in "The County Gentleman," says: "There are two kinds of weather that thwart pictorial work more than others: the level pall of equal grey, where there is but one cloud in the sky, but that 'curtains it from pole to pole,' and the featureless expanse of sunlit blue. The moment clouds of any sort begin to group themselves, the materials are at hand for balance or contrast. It should be remembered that clouds do not simply make a flat pattern on a background. They also reveal or conceal depths and distances amongst themselves.

Few things in nature are so effective as a break in the mass of dark cloud, which carries the eye through it away to the light beyond. If the landscape is full of long, flat shapes, such as often occur by the sea shore, then long, flat lines of cloud become tedious in the repetition; more varied and rounded forms may be looked for to give contrast. We all know how the sharp angles of a square tower are helped by rounded cumulus behind it.

"There is always a strong temptation to get our effect in the sky low down near the horizon. In Nature, however, there are nearly always banks of mist or cloud between the edge of the earth and the open sky. Except at sunset, the more dramatic aspect and grouping of clouds is higher up. If these are taken on a separate negative, they must not be introduced into a picture nearer the horizon, or they will be untrue and uncomfortable in position. The eye misses the invaluable and tender gradation that Nature gives us where earth and sky meet."

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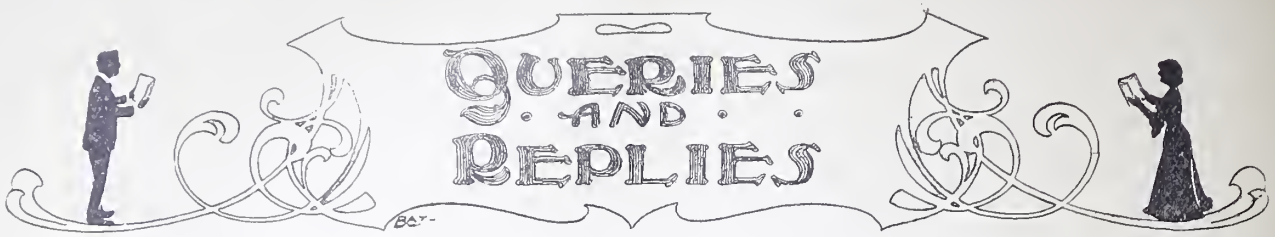
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REGULATIONS.—(1) Envelnpes must be marked "Query," and the "Enquiry Coupon" fnund elsewhere must be enclnsed. (2) The full name and address in additinn tn a *nom-de-plume* must be given. (3) Except in the case nf readers abroad, only *one* questinn nn *one* subject is allowed in each letter. If mnre are asked nnly nne will be selected for reply. (4) Prints may be sent fnr criticism, but a separate cnupnn must be sent with each print, and they must be accnmpanied by a stamped addressed envelnpe (not lnose stamps) fnr their return, or they will not be criticised. Queries are dealt with in strict rntation in the nrder received. Only "Urgent Apparatus" queries will be dealt with by post, and then nnly when they cnncern apparatus actually in the pnssession nf the enquirer nn apprnval, fnr which purpose a stamped addressed envelnpe must be enclosed.

W. J. CHADWICK (Thornton-le-Fylde). — Many thanks for your suggestion.

M. MITRAL (Worthing).—"The Hand Camera," by Wastell and Bayley, price 1s. nett, or post free 1s. 2d., has been written for cases such as yours.

E. VENABLES (Oxford).—We understand that there has been some unavoidable delay over the Earthquake book; but as soon as it is ready we shall make an announcement.

WOON B. N. LARGER (Glasgow).—You will have to use a diffuser of some kind. Perhaps the article on slide making by reduction in this issue will give you some suggestions.

H. MARTIN LANGLEY (Nottingham).—We had a long article by Mr. Alexander on the subject in our issue for September 29th, 1908, page 432, and shorter references before and since.

P. J. WRIGHT (Bexhill).—The same makers would supply you with a longer extension camera; but it would be better to buy it complete and not to have the lens changed. The cost of fitting the lens would be more than its value.

PONTY MON (Pontrewynydd).—The stains are due to oxidation of the developer, and can he prevented by rinsing the prints well between development and fixing, and keeping them well under the surface of the hypo until fixed.

WALTER SMITH (Heaton).—A quill, cut like a toothpick, is the best thing to use, as there is then no danger of scratching the enamel. Just lift one corner with it, and the print should peel off easily. If you have any difficulty, use a formalin bath just before the last washing water.

H. SMITH (Roath).—The quantity of metabisulphite is needlessly large, and by neutralising some of the alkali, would make the developer less energetic than was intended. A dram to the ounce of pyro is ample, and even half that quantity or less would act as an efficient preservative.

J. LAMB (Arbroath).—As it stands there is nothing to submit to anyone, as your proposition (employing three, not seven, primary colours) is common knowledge, and a great deal of experimental work has been lavished on it without getting any practical result. Dr. Smith's "Uto" paper, which used to be advertised, was based on something similar.

B.B.L. (Transvaal).—We gave a formula for a combined bath which ought to suit you about six weeks ago; bnt we do not "recommend" a combined bath at any time, and the whites of the print you enclose are decidedly yellowed. If wire is used it must be thoroughly coated with varnish; Brunswick black will do. Any metal will mark the prints. The camera is a good one but not designed for the tropics.

BURNISHER (Northampton).—For burnishing prints with a hot bar a lubricant is needed. That which is usually employed is made by cutting an ounce of Castile soap into shreds and soaking it for two or three da s in three ounces of water. A pint of alcoho. is then added, and after a thorough shaking the mixture is ready for use. A few drops are put on a piece of flannel and then rubbed over the face of the prints, which are ready for burnishing in a minute or two.

B. HIGGS (Shrewsbury).—There are plenty of solutions which will do the same thing, which can be prepared at far less cost. The ordinary hypo-alum toning bath for example. They work by sulphur-toning the print, and are not usually used on account of the lack of permanence. If you have something which is quite new and free from this objection, and can be sold much more cheaply than a gold toning bath, it would be best to take out a patent and then sell the process. But these are big "ifs."

DEVELOPER (Victoria St., S.W.).—Properly made up and kept in a well corked bottle pyro solution should last indefinitely. Some made by dissolving an ounce of pyro in an ounce of sulphurous acid, diluted with nine ounces of water, was in good working order seventeen years later; hut this proportion of acid is excessive. Ten grains of potassium metabisulphite in ten ounces of water will keep pyro in good condition for months, and more is unnecessary. The harm done by excessive acid is that it neutralises some of the alkali, and therefore makes the strength of the developer nncertain.

R. L. EHRENFEST (S. Ealing).—The exposure has been very full and development insufficient.

J. EVANS (Lowestoft).—It seems to be a cheap lot; but all turns on the accuracy of the description "equal to new."

A.D. (Belvedere).—Usually about half an inch away, a little more or less makes no difference. The only way to find the exact place is by trial.

PRO. (Bognor).—Fallowfields, 146, Charing Cross Road, London, W.C., supply all the necessary materials, and sell also a sixpenny guide to the process.

SANDS (Colwyn Bay).—Mr. J. E. Lockyer, 244, Evelyn Street. Deptford, has a preparation for renovating leather, which we should recommend you to get.

MISS E. SCOTT ANDERSON (West Ealing). — No preservative is required. It does not decompose, or should not do so, after it is once dry. We are sorry we have not the holiday information required.

COLLO. (Dublin).—"Practical Collotype," by Fithian, published by Iliffe and Sons, Ltd., at 2s. 6d., is the book which would suit you best. It is out of print; hut you should be able to get a second-hand copy by advertising.

TAVOY (Burma).—It would necessitate experiment, and that you are in a better position to do than we are. Both your queries would be better submitted to the manufacturers, and we have asked them to write to you on the points named.

N.F.S. (Bombay).—The process is not a practical one, and we do not believe that a formula has been worked out. We are afraid that if you want to use it you will have to experiment for yourself. The Donisthorpe process is a patent one; it would be illegal to do what you propose.

SCOPE (Arundel).—It is very doubtful if they would be supplied paired. The usual charge for pairing is almost as much as they cost. It would be better to get two short focus lenses for the purpose, or, better still, as it will not be wanted for field work, to make a temporary extension of the camera.

R. L. GREY (Manchester).—The balance of advantage is, we think, in favour of the 7½in. lens; but it will limit you to some extent. Still we think, judging from your letter, you know enough of the limitations to get all out of it that is to be got. For an absolute beginner, we should recommend the other.

WALTER (Highgate).—Few shutters are accurate from one end of the graduation to the other. We should not advise you to tamper with yours in any way; but merely make a mental note, or else jot it down in a pocket book for future guidance. You have no reason to complain of the quality of the instrument.

D.V.W. (Largs).—A reflex is the only form of camera which has a finder which under all circumstances shows exactly what will fall upon the plate. The twin lens camera also allows focussing to be carried on up to the moment of exposure, but its greater weight and bulk have caused it to be almost entirely supplanted by the reflex.

WENTWORTH (Huddersfield).—We are not surprised to hear that the makers did not give you any definite reply. There are no tables of developers, plates, and times of development that can be consulted, and those who use these must find out for themselves by experiment. To judge from your letter, you are quite capable of doing this.

G. S. ROBINSON (Sunderland).—We do not know a better than the one given with the plates which you use. If not concentrated enough, the quantity of water in the stock solutions may be reduced to four times the weight of pyro (20 per cent.), and three times the weight of the carbonate (25 per cent); diluting to the full bulk for use.

ENQUIRER (Purley).—Unless there is some very good reason to the contrary, which is wanting in your case, we always advise the use of the formula for developer given by the maker of the plates. There is nothing in the plates sent to indicate that the developer was at fault; but they were so insufficiently developed that there was little to show what other faults they might possess. Try developing for twice as long.

MONN (Wexford).—Not yet.

HANNYMAN (Lewisham).—We are afraid we must disappoint you.

F. G. WHITTINGTON (Camberwell).—It varies, but is generally somewhere about seven inches.

IOTA (Blackpool).—There is nothing for it but to enlarge upon gaslight paper, if bromide gives too soft a result.

ANASTIGMAT (Carshalton).—The exposure with f/6 is almost exactly one half that which is correct with f/8.

NOT ONE OF THEM (Blackheath).—Opinions are sure to differ; but we have no doubt that the committee did its best.

A.B. (Spalding).—Evidently you did not note the article we published in our issue for August 10th, 1909, on page 112.

J.H.M. (Muswell Hill).—You would do well to see Messrs. Houghtons, Ltd., 88 and 89, High Holborn, London, W.C., on the subject.

H.E.H. (Bexley Heath).—Marion and Co., 23, Soho Square, London, W., supply the covers and frames; the Crown Manufactory, Rotherham, supplies the letters.

FALLING FRONT (Kidderminster).—Very little that we can see; but it can generally be managed with very little trouble, and now and again may prove of service.

EXCELSIOR (Brecon). — Over-development makes the negatives too dense. You need not be afraid of this at first. Develop for half an hour, turning after 2, 6, 15, and 25 minutes.

W.P.G. (Gloucester). — Raines and Co., St. Mary's Road, Ealing, W., will do it for you; but unless you are willing to have it photographed in sections on small plates it will he a costly job

G.M. (Heathfield).—Messrs. Witherby and Co., Holborn, London, E.C., will find them. The other firm, we believe, is in Edinburgh. But if you want the books, any bookseller will get them for you.

NAUTICUS (Kirkwall).—Not unless you get a fresh lens which will cover the larger plate; and in any case with the outfit you have, we think you would find it altogether better to get a larger camera if you want larger pictures.

H. A. ROBINS (Oldham).—There is no reason why you should not get good results with the shutter you have if you are not too ambitious. Keep the figures on a reasonably small scale and a hundredth of a second will be all that is required.

E. W. CLARE (Clapham Park).—There is no book on the subject; but seeing that the exposures are all to be made under similar conditions, it ought to be easy enough to determine the correct exposure once for all by the expenditure of one plate for the test.

LIVERPUDLIAN (Liverpool).—Your assumption is not correct You would do well to get a copy of "The Hand Camera," by Wastell and Bayley, price 1s. nett, or post free 1s. 2d., and read carefully the part dealing with lenses. The matter is far too lengthy for this column.

OWL (Eccles).—We have no recollection of your earlier enquiry. If you put all the circumstances before a lantern expert, such as Mr. R. R. Beard, of Trafalgar Road, Old Kent Road, London, S.E., he will be able to supply you with that which is best suited for your requirements.

SILLY BILLY (Hereford). — If the bishop went to a photographer and paid the full price for his photograph he could give you permission to use it. But many celebrities pay a lower fee on the understanding that the photographer retains the copyright, and in such a case the bishop could not give you permission. If you copy a picture postcard you are likely to get into trouble.

HALATION (Hendon).—No amount of black velvet behind a plate can have any effect whatever on halation, which is caused by light reflected from the back surface of the glass. As this light never gets out of the glass at the back at all, it manifestly cannot be affected by anything beyond. Plate backings are made of substances closely resembling the glass itself in some of its optical properties, and so, as far as reflection is concerned, they do away with its back surface and absorb what light reaches them.

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Unrivalled for making lantern slides and transparencies by contact. Wide range of tone from ruby red to pure black by development. No dark room required.

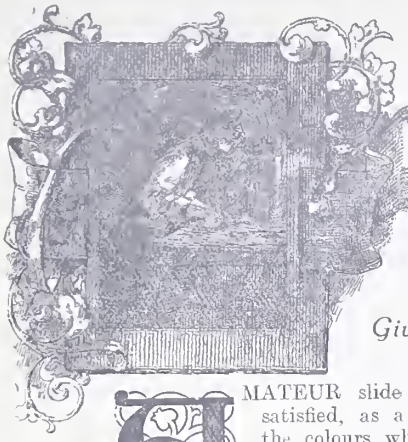
EDWARDS' SPECIAL TRANSPARENCY PLATES.

For lantern slides by contact or reduction in the camera. Yields slides with clear high lights and transparent shadows with full gradation.

POPULAR PRICES. OF ALL DEALERS.

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The Gold Toning of Lantern Slides.

By W. Workman. *Special to "Photography and Focus."*

Giving Formulæ and Methods largely used by Professional Slide Makers.

AMATEUR slide makers seem to be satisfied, as a general thing, with the colours which they can get by means of development only, ranging from a cold black to a warm brown or red through a series of colours which are all more or less brown or sepia. Although the makers' formulæ give developers for "purple" tones, none of the colours obtained with such developers are a true purple, but essentially a brown; and, so far as my experience goes, no process or plate that I have ever tried will give a lantern slide of that colour which is to be obtained on a good P.O.P. by printing deeply and toning well.

True purple, such as has been referred to in the preceding paragraph, is a very fine colour, and is very agreeable on the screen, no matter what illuminant may be used. Its popularity is shown by the fact that it is the colour adopted by some of the best professional slide makers, and it is generally recognised that the only satisfactory way to obtain it is by toning a warm toned lantern slide with gold. The actual formulæ used are not generally known, and different workers have modifications of their own, but the lines upon which they proceed are all very similar.

The first and most essential part of the proceeding is to make a good warm toned slide by any of the usual processes of development, giving a long exposure, and using a developer which is very powerfully restrained with bromide. My own work is all done with pyro-ammonia and ammonium carbonate—formulæ which are well known and need no repetition. I do not doubt that the process will work equally well with slides which have been made with other developers; but in such cases there may be a little need for modification of either the time of toning or the strength of the bath. [We publish an article in this issue on the production of warm tones by development, by Rev. H. O. Fenton, which will be found to give all necessary instructions.—Ed.]

As the gold toning not only turns the deposit to a darker colour, but actually adds to it, the action of the bath is an intensifying one, so that the untoned slide should be a little on the thin side. It is fixed and thoroughly washed. Half an hour under the tap, or an hour and a half in a washer, is none too long.



On the Sands at Brighton. *By G. A. Tomkins.*

It is then placed, while still wet, in the toning bath, which is made in the following method:

A ten per cent. solution of ammonium carbonate forms one of the stock solutions for developing for warm tones, and is also one of the stock solutions for gold toning. The gold chloride I keep in solution of such a strength that one dram of liquid contains one grain of gold chloride. The other stock solution is one of ammonium sulphocyanide, also of a ten per cent. strength. To make up the toning bath, the following quantities of these stock solutions are employed:

Ten per cent. sulphocyanide	½ ounce
Water	3 ounces
Gold chloride solution	1 dram
Ten per cent. ammonium carbonate	15 minims

The additions must be made in the order given, and the quantity named will be found to be sufficient to tone three or four slides. It is best to use the flattest possible dish for the purpose to avoid waste of the solution, and to take one ounce of bath to each slide to be toned.

The toning is just like ordinary gold toning. The action is fairly rapid, and will be complete in a minute or two, depending upon the temperature and on the condition of the film of the slide. Slides which are toned immediately after development and fixing, not being allowed to get dry in between, tone much more quickly than old slides the films on which have had a chance of getting thoroughly hard. The action should not be allowed to go too far, but be stopped when the slide is still a little warmer in tone than is wanted, as it will go a little colder in colour as it dries, and at the same time will seem to increase slightly in density.

After toning, the slide should be put under the tap for a few minutes, or in a washer with a stream of water for about half an hour, then be held under the tap while its surface is very gently rubbed with cotton-wool, and then stood up to dry. The toning bath seems to make the film rather tender, so the rubbing should be done carefully. In very hot weather it might even be necessary to give the slides a formaline bath before toning to counteract this; but, as slide-making is not a pursuit that is followed much in the height of summer, this is not likely to be necessary.

If all has gone as it should have gone, the result will be a slide of a rich purple black colour, with quite pure unstained high lights, and strong but not blocked-up shadows.

For the making of Enlargements there is no more suitable medium than "Wellington" Bromide Paper. It is made in a variety of grades, under the most scientific conditions, nothing but the finest raw material and the most modern methods and machinery being employed. Every sheet of "Wellington" Bromide Paper which leaves the factory can be relied upon to give the best possible rendering from all classes of negatives.

WELLINGTON BROMIDE.

Platino Matt Surface:

Smooth Rough, 'Xtra Rough, Special Thick, Cream Crayon 'Xtra Rough, Cream Crayon Thin Smooth, and Special Smooth.

Ordinary Surface:

Smooth, Rough, and Cream Crayon Rough.

Carbon Surface:

Thin and Thick.

Canvas Surface:

Cream and White.

Enammo (Glossy Surface):

Rose, White, Mauve, and Contrasty White. Thick Rose and Thick Mauve.

Ask your Dealer for a Booklet on "Wellington" Bromides.

WELLINGTON & WARD, ELSTREE, HERTS.



"The time has come, the Walrus said, to talk of many things."

IN my recent remarks on photographing wild animals the word rhinoceri appeared as the plural of rhinoceros. Whether I so wrote the word myself I do not know, but if I did I make no excuse, and frankly admit that I deserve to be hanged. A watchful reader has pointed out my crime and said I may go from bad to worse and talk about omnibi and mandami. Very likely; for already I use foci as the plural of focus.

* * *

I own that my blunders, like the language of Truthful James, are frequent and painful and free, but it is some small consolation to know that I am not the only blunderer about. There are others. I saw an advertisement the other day in which a lens was recommended as being "free from anastigmatism," which was about on a par with saying that a joint of meat was free from freshness, or a new book free from interest. But some of these long words used in photography are certainly twisters, and it is no wonder that the well-meaning young man at the dealer's gets tied into a horrible knot when he tries to explain the difference (if any) between an achromatic lens and a panchromatic plate. No doubt he is often annoyed because he is not allowed to sell a few knobs of glass in a bit of brass pipe as being simply a lens, but is expected to introduce it to the impressed customer as a hollowpanauthorsticknat, or words to that effect. He forgets that with a name like that it looks better worth the money.

* * *

Another bad blunder was made by the author of a print which I see took a prize in a recent competition in a weekly magazine. The print was of Trafalgar Square by night—not a particularly original subject, although it has been a godsend to me when I have been prize hunting myself. It included all the usual features: St. Martins in the (absent) Fields, threequarters of a Landseer lion on a pedestal, two statues on dittoes (one being also on a gee-gee), eight clumsy stone posts, and a dozen mixed lamp blurs. But there was certainly one original feature, and very likely it was this that captured the award: the fountain was playing! I know it is quite easy, with patience and a pencil, to whack a first-class jet of water into a negative; but in a night view of Trafalgar Square it is a bad side-slip to represent in the act of busily squirting a respectable and law-abiding fountain which religiously ceases squizzling at 4 p.m. daily. Moreover, even in working (or playing) hours these fountains cannot and do not squirt as high as this lead pencil jet indicates.

* * *

The misguided chap who rashly starts monkeying with either negative or print is bound to blunder, and to blunder badly. I have known him introduce clouds upside down, or lit in such a way as to demand the presence of two suns in the firmament. I have known him make the sun set due north, or create with a wafer an astronomically impossible moon. I have known him put in a figure who, like whatyoumaycallhim in the tale of thingamybob, casts no shadow. I have known him introduce the horizon line below the level of a small table top which would have to be larger than the world to make such a vision possible. I have known him make a massive stone tower so transparent that one could see distinctly through it the faint clouds beyond. Nay, to be strictly truthful, we have all done these things, and worse, ourselves. We are hopeless blunderers.

* * *

A particularly bad blunder has just been made by a travelling photographer (so-called, as our friend the crank would say). He (the ambulatory shadow-snatcher, not the crackpot) professed to be taking photographs with a marvellous "camera" carefully covered with a cloth. When a suspicious customer asked how he could work without removing this cloth he explained that the camera got so hot that he could not touch it. One wonders with whom he was in league, as this unusual temperature requires explanation. He also took many photographs of people indoors while his red hot camera was left outside, presumably to cool. Now and then he braved the heat and sought to create a favourable impression by vigorously turning a handle on the camera. No music resulted, but his victims were sufficiently gratified by the performance to pay for their photographs in advance. The blunder he made was in omitting to supply any photographs. They were probably cremated, or perhaps they smelt too strongly of brimstone to be acceptable. However his praiseworthy attempts at original photographs were well rewarded with the imposition of twelve months hard. His camera will now have a chance to cool.

* * *

A blunder of somewhat different type appears in some photographic notes in the "Globe." The gifted writer points out that reflections in water are not so effective when the surface of the water is smooth as when it is rippled. He adds that a stone cast into the water will do all that is necessary. It will. So will a brick or a photographer. He then proceeds to say that *imitation* ripples formed in this way last a long time. So they are, according to him, only imitation ripples after all, and presumably the photographer who is hurled in for the purpose only makes an imitation splash, gets an imitation wetting, and utters imitation oaths. I fancy the imitations are as near the real things as can be.

* * *

As a final example of blundering I quote the case of a reader who tells me that he has recently varied his photographic work with the pleasant occupation (for him) of shooting rabbits. If he takes his gun out in the evening there are no rabbits, but the conditions are ideal for pictorial photography; but when he takes his camera the weather makes photography impossible, and the rabbits come out and openly hold him up to derision. At eventide he sallies forth with a camera, and when he commences operations he cannot see the landscape for bunnies. When he makes tracks for his gun the rabbits unanimously remember a pressing engagement in the next county. His obvious mistake lies in trying to do too many things at once. As a wise man once observed, if drinking interferes with your business give up your business. So I advise my correspondent to stick to photography, and abandon the slaughter of the poor rabbits. They won't mind.

* * *

I mention these few blunders to show that worse mistakes can be made than saddling rhinoceros with an unjustifiable plural. Q.E.F.

THE WALRUS.

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Amateurs' Prints and Permanence.

Permanence not only depends on the production of the print, but on the way it is kept: light not always a cause of fading: gold toning and permanence: when hypo eliminators are useful.

MOST amateur photographers when they make prints or enlargements desire that their work shall be what they would call permanent, although they probably attach no very clear meaning to the term. This is evident, since it is often said that the only permanent processes are carbon and platinum, and it is very generally recognised that ordinary silver prints are not permanent. Yet if an amateur is asked why he takes much trouble to wash his prints thoroughly, he would no doubt reply that he does so in order to make sure that they shall be "permanent." It would be just as well, therefore, if we see how far this rather vague term may be applied to our work, and what steps have to be taken to secure as much permanence as the processes used will permit.

Before one can say how far a print is permanent, the conditions to which it is to be exposed must be considered. No print can last longer than the paper on which it is made; and in some instances paper perishes very rapidly. A print which became covered with large disfiguring spots in a few months or years would certainly not be considered permanent; yet the spots might have nothing to do with the process by which it was made, and be caused by mildew, owing to the print being left in a damp place where such a growth was favoured.

The Atmosphere and Silver Prints.

Again, no silver print, however carefully made, could be expected to last indefinitely in an atmosphere which contained much sulphuretted hydrogen and other sulphurous gases, such as are formed when gas is burned. Sooner or later it would alter, and the alteration would lead the photographer to conclude that his print was not a permanent one. We see, then, that the conditions under which photographs, even when these are by so-called permanent processes, are kept play a very important part in determining the length of time during which the photographs will remain unaltered.

The conditions which are most favourable to the keeping of photographs of all kinds are a reasonably pure atmosphere and freedom from damp. Light does not appear to affect prints on P.O.P., bromide, or gaslight papers, and if they contain within themselves the germs of change they will alter or fade as quickly in the dark as in the light. Many bad cases of fading will be found amongst the specimen prints that are bound into the various almanacs and year books, which prints have been protected from light almost uninterruptedly from their production, showing at least that light is not necessary to bring about fading. On the other hand, three-colour prints made with dyes of doubtful stability, and platinum prints toned by various methods, alter more in the light than in the dark.

With silver prints, especially with P.O.P. and results by kindred print-out processes, the mountant and the mount may play a very large part in causing fading. Unmounted prints are always less likely to alter than mounted ones. Some of the cards used for mounting are most impure, and may contain an appreciable quantity of hypo. A silver print attached to such a mount by a mountant in any way acid or tending to become acid is

Almost Certain to Change.

Dry mounting as at present practised is probably not only a guarantee that the mountant is harmless, but acts as a protection for the print against any hypo or similar impurity in the mounts.

MEMORANDA *for the week.*

To send a postcard to Messrs. R. & J. Beck, Ltd., 68, Cornhill, London, E.C., for an eighty page book, "The Photographer's Note Book on Lenses," sent gratis and post free to the readers of "Photography and Focus." (See p. 293).

Gold toning is another aid to permanence, and those who wish their prints to be lasting will take care that they are actually toned with gold, and not merely sulphur toned in a bath that has once had gold in it. Some papers are said to

Tone with Very Little Gold.

If this claim means anything at all, it is certainly not a recommendation of the paper, as a print toned with little gold is assuredly more likely to fade than one which has received a liberal plating of the noble metal. The stigma under which the combined bath labours is due to the doubt which must often exist whether it is toning with gold or with sulphur. So long as it is toning with gold there is no reason to suppose that prints toned in a combined bath are less permanent than those that are toned and fixed separately.

A question that is very often put to us on this topic of permanence is with reference to the extent of washing that is necessary to get rid of the hypo. Some text-books, with the very laudable object of making quite sure that the washing is complete, prescribe so thorough and laborious a series of operations that the amateur, who is taking photographs for amusement only, very naturally jibs at such a task. However fascinating some photographic operations may be, this adjective cannot fairly be applied to the washing of prints or of negatives, and everyone must look upon those processes as a nuisance to be got over as quickly as possible. Hence the popularity of hypo eliminators, and of printing papers which it is claimed will work with a minimum of washing; and on the merits of these supposed labour-saving devices we are often asked to pronounce an opinion.

What about Hypo Eliminators?

Now there are certainly solutions which can be relied upon to decompose any hypo left in the pores of a film or negative more quickly than it can be washed out by water. And if, as the criterion of the efficacy of such solutions, we are guided by the presence or absence of hypo, as revealed by such a test as the permanganate one, they seem to be effective enough. Nor is it easy to see what other test, short of the test of time itself, can be applied to a hypo eliminator. But what this examination does not tell us is the nature of the compounds into which the eliminator converts the hypo, and whether these are or are not harmless. It may be that they are even more likely to react injuriously on the print than the hypo itself.

Opinion is divided on the subject whether hypo in a print is really harmful or not. There are plenty of cases recorded in which prints have had nothing more than a rinse or two after being taken out of the fixing bath, and have kept unaltered for a long time, showing apparently that hypo is not injurious to permanence.

Probably the fact is that so long as the hypo remains as hypo it does no harm, but when, under the influence of air and moisture, it decomposes, it acts detrimentally upon the print. If that is so, it is quite possible that some hypo eliminators by facilitating this decomposition may actually make the print less permanent than it would have been had the hypo been left in it. This is a subject on which there is room for a good deal of careful experimental work. One thing is quite clear, and that is that if we wish to be quite on the safe side we must not only get rid of the hypo, but if we employ a hypo eliminator we must get rid of the products of the decomposition of the hypo; and in view of the extremely soluble character of the hypo itself, it is doubtful whether it is not easier to wash it out of the prints and plates straight away than to "eliminate" it and then wash out the products of elimination.

When an Eliminator is Useful.

There is one set of circumstances in which hypo eliminators are decidedly useful, and that is when the prints or negatives have to be intensified or submitted to after processes in which the presence of hypo is harmful. By treating them with a hypo eliminator, a good deal of time is saved, while the other solutions and the final washings which in any case are then necessary may be relied upon to get rid of the bye-products of the "elimination," as well as of any other unnecessary substances. But with that exception, wherever we have any interest in the ultimate permanence of the result, we prefer a thorough, rapid, and not very laborious washing to any chemical treatment whatever.

R. C. B.



Awards for Lantern Slides.

The slide competition which we organise each year will close on Monday, October 18th, so that there is only a week from now in which to get the slides finished and sent in. It may not be generally known that the winning slides, together with those additional ones which we select for purchase (under Rule 3), are made up into a set, which circulates first amongst the British photographic societies, and then amongst those in Germany and Austria, where they always come in for high commendation. The rules will be found on page 307 this week.

Ready-made Eulogy.

Some weeks ago we received from the publicity section of the Dresden Photographic Exhibition in this country a fulsome puff of one of the photographers connected with it, together with a small item of news. We published the news in due course, but omitted the puff. Some of our contemporaries, we notice, printed the latter without anything to show that it was a bit of ready-made eulogy, and not a spontaneous outpouring of their own admiration. The journals which printed the puff appear to have been provided with a list of the awards at the exhibition, while *Photography and Focus* has not received the list. Whether there is any connection between the omission to send us the award list and our own refusal to lend our columns to these log-rolling practices we do not pretend to know; we merely record the fact. We also ask our readers to note that when an expression of approval or otherwise is given in our columns it is a genuine and original opinion, based upon an examination of the facts, and not a mere reprint sent round broadcast

by some "publicity agent," and printed for no better reason apparently than that it comes readily to hand and costs nothing.

THE REFORMERS.

Our programme was under discussion last night—a task for deep thought and sobriety, and the Council agreed that we certainly might endeavour to get more variety; the same demonstrations in previous years had turned up like good hardy annuals, and the lecturers merely obtained their ideas from the regular handbooks and manuals.

"Enlarging" was banned without further ado, so also were "Carbon" and "Platinum." "Transparencies" found a supporter or two, but the rest of us managed to flatten 'em. "Bi-gum" we declared was a thing to avoid—we had had it four years in succession (and our principal "splodger" was vastly annoyed, and showed it by word and expression).

"Magnesium Portraiture" came off the list, so also did "Negative Faking." "The Toning of Bromides" was quickly dismissed, with "Mounting and Picture Frame Making," and "Focal Plane Work" and "The Snapping of Waves," and the lecture on "Photomicrography," and the question that's driving us all to our graves, "Is there any Real Art in Photography?"

At the end of an hour, we began to take stock, and it seemed we'd been rather too clever, for it struck us at once, with a terrible shock, that we'd left ourselves nothing whatever. So we cudgelled our brains for new things we could do by way of avoiding monotony, and it seemed that ideas were remarkably few, for no one appeared to have got any.

We knew what the upshot was going to be, but none of us wanted to own it, till the Sec., with a groan, said "It's patent to me that we cannot afford to postpone it." And the motion he put, 'mid ironical cheers, was confirmed by unanimous vote, O!

To wit, "That the Programme of previous years be simply repeated *in toto*."

Sulphur Toning Peculiarities.

Every photographer almost uses the sulphur toning process now either for his gaslight prints or for his bromide enlargements, and many must have been struck by the peculiar way in which the prints will at times behave. In the current number of the Ilford "Photographic Scraps" Mr. Harold Baker has an article on this topic, in which he points out that, while gaslight papers give a yellower brown than do bromide papers, as a rule the tones obtainable on gaslight papers are not so susceptible to the result of alterations in exposure and development as the tones on bromide paper. In the case of prints on the latter, the final colour may vary in warmth very much. A bromide print developed with well-restrained metol-hydrokinone, he points out, will be far warmer in colour than one developed with metol-potash, but the exposure for the latter would have to be much shorter than for the former. Short exposures and quick acting developers give colder browns, while long exposures and well restrained developers give warmer colours. Mr. Baker states also that many of the photographic postcards on the market are said to be on gaslight paper and toned to a colour very much resembling that of a cold toned P.O.P. print by the simple process of leaving them in an acid fixing bath for twelve or fourteen hours. Unless the negatives are fairly uniform in density, so that the conditions of exposure and development may be substantially the same, "photographers must not expect to secure the same colour in all their prints by sulphide toning"—a fact which is indisputable, and which those who work the process would do well to note.

Stray Light in Enlarging.

A great many of the enlargements that are made with enlarging lanterns are not so bright as they should be, on account of the quantity of stray light in the room. The bromide paper is pinned up on the easel and exposed to this stray light for a longer or shorter time, according to the opacity of the negative and the size of the stop used in the lens of the enlarger. Hence the thinner the negative and the bigger the stop the less chance there is of this light acting injuriously, and therefore the brighter the enlargement. Some enlargers of the lantern type are great sinners in this respect, allowing white light to stream out of them in all directions, and the photographer who possesses a lantern of this type would do well to see if he cannot prevent at least some of the light from getting out without, of course, interfering with the proper ventilation of the lantern. A good test as to the presence of enough light to do harm is to fasten one corner of the bromide paper (a corner which does not receive any direct light through the negative) with an ordinary drawing pin. If when the enlargement is developed the outline of the head of the pin can be seen on what should be a plain white ground, the paper is light fogged to that extent.



Cooking Both Ways

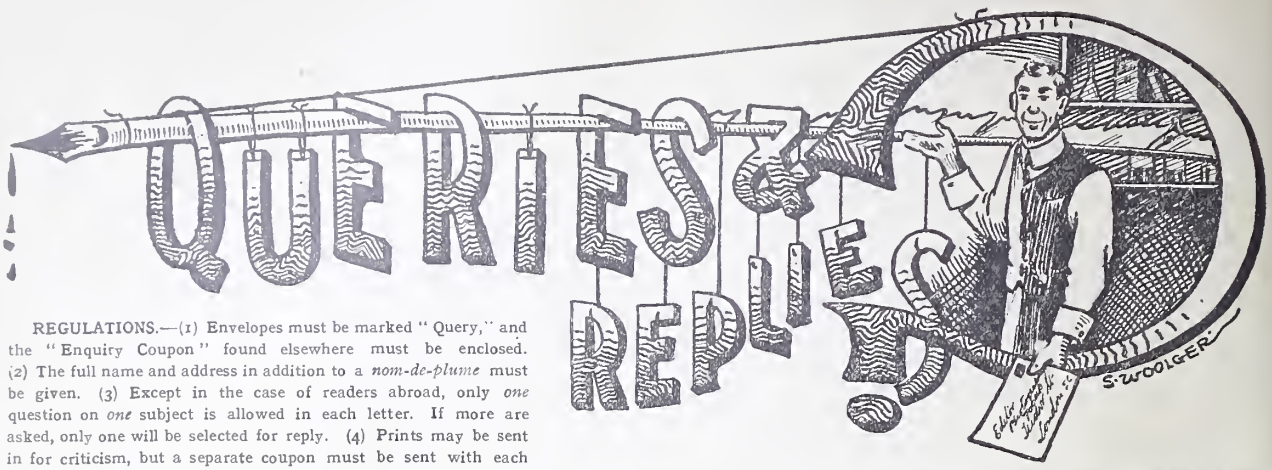
Amongst the features of last weeks issue of "Photography" were

Lantern slides with warm tones. By Rev. H. O. Fenton.
The gold toning of lantern slides. By W. Workman.
Collodion emulsion slides. By R. Child Bayley.
Lantern slides by reduction. By E. Hughes.
Mounting slides. By T. Orton Murray.

Next week amongst other matters we hope to deal with

Making the best of it.
Magnesium light portraiture. By Thos. Bell.
Critical causerie.
How to secure copyright. By "Practicus."
More "odds and ends" from readers.





REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked, only one will be selected for reply. (4) Prints may be sent in for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

B.A. (Ilford).—Your letter has been sent on.

RETRAO (Grays).—See reply to G. A. C. Taylor (Bath).

W.B. (Ushaw).—You can have no protection unless you register the copyright.

F. B. WOODS (Maryborough).—We are unable to trace the formula to which you refer.

BEGINNER (Lincoln).—Raines and Co., St. Mary's Road, South Ealing, London, W., will do it for you.

L. VINEY (Hammersmith). — There is no need to bleach a bromide print before making an ozobrome. The process itself bleaches it.

W.C.C. (Cheltenham).—The information you have received is, we believe, correct. We understand that they are not on sale separately.

F. O. WHITAKER (Hampton Wick).—The coin was, we believe, placed upside down to be photographed. We presume it is this to which you refer.

VISPEY (Colne).—The varnish can be removed by giving three or four good soakings in benzole, and the process can then be taken up where it was left off; but unless all the varnish is removed first the action will be irregular.

MISS E. SCOTT ANDERSON (West Ealing).—The defect is due to too much bromide in the developer. You would do well to stick to the Wellington formula precisely and either to make it up yourself or get it made up by a reliable chemist.

S. HODGINS (Rickmansworth).—There is no donbt that plates with reasonable care will keep for many years, fifteen or twenty; and we have never had any evidence of the alteration described in the paragraph you quote. We understand that all the evidence points the other way.

WALTER BROWN (Warrington).—Formic Aldehyde and Formaline are the same substance. The former term is generally applied to the gas and the latter to the solution of the gas which forms the commercial article; but in the passage quoted they are used as if they were synonymous.

G. A. C. TAYLOR (Bath).—Focus on a distant point, and measure carefully from the fixed stop or place where the stops should go to the ground glass. Measure the diameter of the opening where the stops should be and divide the other ascertained distance by this. The result is the F number approximately.

SAM (Warrington).—There are several causes which might produce the fog in question. The likeliest is insufficient fixing, as we note the edge is not fixed now. Insufficient washing between development and fixing might cause it; in fact, it is one of those things which it is impossible for anyone not the actual photographer definitely to diagnose.

WAFER (Bishop's Stortford).—The markings look as if they were caused by air bells forming on the plates in the course of development. In our experience prolonged tank development is never very satisfactory; the best results being obtained when the total time taken does not exceed half an hour. We should advise you to use a strength of at least half an ounce to the pint.

H.B. (Grantham).—The make is a perfectly reliable one; but the fixed focus system is not practicable with a larger size than quarter-plate. In any case we would strongly advise you to get a focussing camera. In the early stages you can, if you wish, dispense with the focussing arrangement, merely using the camera extended to the "infinity mark." This will then do all that a focussing camera will do, and still will leave you the power to focus if you desire to do so, as you soon will.

ALEXIS (Belfast).—The Watkins Bee Meter.

SCREW (Arundel).—J. A. Sinclair and Co., Ltd., 54, Haymarket, London, S.W.

D. C. MACLACHLAN (Edinburgh).—Mr. W. J. Wilson writes that the No. 0 Standa tank, price 10s. 6d., will take Ticka films.

IRISHMAN (Waterford).—"Silvio" is no doubt what you have in mind. It used to be made by the Rotary Photographic Co., Ltd., of New Union Street, Moorfields, London, E.C.

ORGANS (Notting Hill).—The nearest is the West London Photographic Society, of which Mr. J. R. Lynch, jun., 160, Holland Park Avenue, London, W., is the honorary secretary.

ANXIOUS (Malvern).—We can only suppose the spots are due to mildew; we know of nothing in the process which would cause them, and cannot suggest a remedy. Probably a bath of ten per cent. formalin would prevent them.

SIZE (Selby).—The term "carte-de-visite" is given to a print 4½ by 2½ inches. Quarter-plates were almost invariably used for these prints, which used to be very popular, but have now largely given place to other sizes.

SWING BACK (Horsham).—To avoid distortion when the camera is tilted the back must be swung until it is perfectly vertical, as shown by a level or plumb line. In landscape work the distortion is generally immaterial.

HAND CAMERA (Devonport).—The rubber has perished, as all rubber will do in time. Different makes vary very much in the length of time they will last. You will be getting the best if you send direct to the Thornton-Pickard Co. for it.

G.L.G. (Burgess Hill).—Thanks for your reminder. You are quite correct, but we think we had better let the paragraph stand, as you will no doubt agree that, although it may be possible to measure acids in metal spoons, it is not at all a practice to be recommended.

E. SAWYER (Johannesburg).—We cannot criticise prints except under the conditions named above. We should advise you to read the "Critical Causerie" carefully for help in arranging the picture; technically the two prints sent are good enough not to need criticism.

H. B. PENN (Bayswater).—Your best plan will be to drop a line to the secretaries of two or three societies on the lines of the one which you have in contemplation, asking them to let you look at a copy of their own rules and regulations. There is no book which gives the information for which you ask.

H. M. HOLLINGWORTH (Muswell Hill).—We are sorry, but we cannot possibly test your developing solution for you. The brand of plate is an excellent one, and the spots are no doubt due to something which happens to the plates while they are in your hands. What that is you will have to find out.

MABLE (Castleacre).—Your only plan is to consult a solicitor, provided you can show that their "usual rate" is worth troubling about. But if you take our advice you will try one more letter naming a specific and reasonable sum, and if that is no good, let things slide. You say nothing about registration of copyright.

BETTY'S BROTHER (Heaton). — If the developer got to the eyes by their being rubbed with hands wet with it, inflammation would be very likely to arise. But failing actual contact we do not think it at all likely that the trouble was caused in this way, unless a developer containing ammonia was used, and the vapour of this, which is easily recognised by its smell, got to the eyes. Ammonia is not much used now, and is not at all necessary.

HEATON (Chapel-en-le-Frith).—The information is not available; the makers give no details.

SEAGULL (Lizard).—The spots are due to chemical dust of some kind settling on the cards while they are wet. We have returned the card.

AND. LEAR (Dublin).—You do not give your address, and your negative arrived smashed to atoms. In these circumstances we can explain nothing.

A. E. ALLEN (Saxmundham).—The dots are due to chemical dirt of some kind, possibly particles of metal in the water supply; but more than this there is no evidence to show.

ANTON MAYER (Leipzig).—We know nothing of the sport photographs, and return promptly all prints sent us which we cannot use, provided they are accompanied by postage. If not they are destroyed.

LANTERNIST (Shrewsbury). — For writing on black masks "Artists' Liquid White" may be used; or ordinary water colour Chinese white, in tubes, mixed up with a little gum water until it flows easily from the pen.

C. MORRIS WHITE (Wetaskiwin Alta, Canada).—The subscription to the R.P.S. is one guinea per annum, and candidates have to be proposed and seconded by members of the society. Its address is 35, Russell Square, Bloomsbury, W.C. We have asked the secretary to post you full particulars.

E.P.L.P. (Wellington College).—Water just tinged pink with potassium permanganate used until the colour is no longer discharged by the hypo in the film, may be used; but we believe that nothing is better than plain water for the purpose, and should never think of using any other compound in our own practice.

EXIT (St. Helens).—The cause is reflection from the bellows of the camera, due generally to the use of a lens without a sufficient hood. It will be well to see that the bellows are well blacked inside, and if that does not cure it to provide a hood or lens shade of blackened card, or card lined with black velvet. The print has been sent back.

P. SMITH (Hunstanton).—Our preference is for the separate tripod screw; but with some of the very small compact tripods this is impracticable, and the camera screws directly on to the thread on the head. It answers very well for small cameras; but would not be so suitable for large ones, as it is impossible to turn the camera on the tripod; the whole apparatus has to be lifted and turned.

E.P.H. (Anglesey).—It must first be mounted by soaking in cold water for some time, and should then be reduced with weak ferricyanide and hypo, just as a negative is reduced, and then be well washed and remounted. Unless it can easily be replaced, however, it would be better not to risk it. If the over-printing is not great, a rub over with "encanstic paste," or bees wax and turpentine will often give depth enough to the shadows.

G. W. FORTESCUE (Clapham Junction).—We have sent back the prints. They are satisfactory enough as ordinary likenesses, but lose modelling from the excess of light. You would do well to fit blinds to all the glass, so as to enable you to render the lower half of each third or fourth part of its total length opaque at will. The blinds should draw up from below, not down from above. The only further advice to be of service that can be given is to study carefully the lighting effects to be obtained by altering the blinds, not necessarily exposing every time, but noting the visible alterations, always remembering that the tendency is to use too much rather than too little window.



AT THE AFFILIATION NIGHT at the R.P.S. exhibition, fifty-one societies were represented by nearly four hundred members.

DEATH OF MR. DOUGLAS CARNEGIE. We regret to learn of the death of Mr. Douglas Carnegie, of Blackheath, which took place on the 1st inst. at Darlington, where he had been lecturing. Mr. Carnegie, who took a great interest in photographic processes, did much to popularise Dr. Eder's method of intensification by bleaching and redevelopment.

ELECTRICAL APPARATUS of all kinds is supplied by Messrs. Marion and Co., of 22 and 23, Soho Square, London, W., who send us a copy of the price list of their electrical department, which has just been issued. It includes arc and mercury vapour lamps, resistances, diffusers, etc. Messrs. Marion also supply electric advertising signs, fans, motors, etc.

THE EDINBURGH PHOTOGRAPHIC Society at its annual meeting elected the following officers: President, J. F. Duthie; vice-presidents, H. Stewart Wallace and R. C. Malcolm; survey secretary, James Oliver; secretary, J. S. M'Culloch; treasurer, John B. Peden; curator, John Anderson; council, Wm. Hayne, D. W. Thompson, J. C. M'Kechnie, and Alex. Eddington; auditors, David A. Fairley and James Paterson.

A KING CAUGHT PHOTOGRAPHING Fortifications. According to the "Manchester Evening Chronicle," the King and Queen of Italy, motoring to Mont Cenis, were not recognised by the Custom House officers, and their cameras were sequestrated, as the taking of photographs is prohibited in fortified zones. The sovereigns patiently submitted to the delay, and kept their *incognito*. King Victor, however, casually removed his goggles, and was immediately recognised. The officials somewhat confusedly apologised for their mistake, and returned the cameras.

THE DONCASTER CAMERA CLUB. At the annual meeting the following officers were elected: President, Walter Roberts, F.R.G.S.; vice-presidents, Herbert Athron, N. Gyles, T. S. Gill, Alma Jordan, G. Raithby, Dr. W. Fisher Ward, and Raymond Wilson; judges, A. Keighley and Dr. W. Fisher Ward; chairman of committee, F. J. Clarke; vice-chairman, W. Keightley; committee, E. Burgess, T. H. Connor, W. Elwess, jun., J. B. Foottit, G. B. Preston, G. L. Sutcliffe, and H. C. Tuxworth; auditor, H. Waterton; lanternist, F. Moat; treasurer, J. T. Blackshaw; honorary secretary, Fred A. Jordan, 21, Baxter Gate, Doncaster.

A JUBILEE. This is the fiftieth year of the existence of the Edinburgh Photographic Society.

THE AFFILIATION PRINTS AND SLIDES. The awards, made by popular vote, were as follows: For prints—(1.) E. Alwyn Biscoe, (2) A. G. Buckham, and (3) J. C. Nunn. The award for the best slide went to H. C. Beckett.

AT THE WALTHAMSTOW Photographic Society's annual exhibition, admission to which was free, an excellent programme of instrumental music was arranged by one of the members, Mr. A. Wilmot Wilkinson, F.Gld.O.

THE "CHALLENGE" NATURE art mounts are supplied by the Challenge Works, Macclesfield, in shilling packets containing either forty-eight pieces 8 by 6in., thirty-six pieces 10 by 8in., or twenty-four pieces 12 by 10in. The mounts themselves are of stout substance and an agreeably matt surface, and are issued in nine different colours.

"GREAT SCOTT!" said the convicted pickpocket, as he struggled to get loose, "you are not going to take my photograph, I hope?" "Yes, for the Rogues' Gallery." "Oh!" he exclaimed, with a look of intense relief, "go ahead, then; I was afraid you were going to make a woodcut of it for the 'New York World.'"—("Bulletin of Photography.")

THE "PRISM," the magazine issued by the Bausch and Lomb Optical Co., deals this month with the "Convertible Balopticon" made by that firm. This is a projection lantern for showing opaque objects as well as transparent slides, and can be used also for vertical projection. Those who would like to read all about a very ingenious instrument can do so by sending a stamp to cover postage to the Bausch and Lomb Optical Co., 19, Thavies Inn, London, E.C.

WASHING SILVER PRINTS. Mr. M. W. Tutt writes with reference to the article on this subject by Mr. Harold Ashe, which we printed a fortnight ago, that he has "found from experience that the preliminary and after washings are quite unnecessary, apart from destroying the simplicity of the whole operation. A domestic bath of the average size will contain sufficient water, when filled to a depth of some 2in. more than the length of the prints, to remove all traces of hypo from as many prints as can be placed in it, in the way that has been already described."

ORTHOCHROMATIC TELEPHOTOGRAPHY. Mr. E. A. Biermann, writing in the "Telephoto Quarterly," states that in the rendering of very distant objects—more especially, perhaps, coastlines—an ortho. screen and good ortho. plates are almost always necessary. But where in this country they are most valuable is in the cutting out of the haze, which is such a constant worry to the British photographer. As a rule, in his experience, very deep screens are not desirable, a four to six times screen being sufficient, usually. "But the screens *must* be flats. Only at the lowest magnifications is the stained strip of gelatine of any earthly use."

THE HACKNEY EXHIBITION ENTRIES. The date for these has been extended to the 23rd inst.

THE "SALON SMOKER" on Tuesday night last was well attended, and an admirable programme of music, conjuring, and recitations provided.

THE BRADFORD EXHIBITION was opened by the Lord Mayor of Bradford on the 4th inst. The Bradford Photographic Society now has rooms of its own at Belle Vue, with dark room and other accommodation.

A LOADED CAMERA. A man has been arrested at Portland, Oregon, while endeavouring to make his way to President Taft. He was carrying a camera, which was subsequently found to contain a loaded revolver.

THE PRIMUS LANTERNISTS' POCKET BOOK for 1909-10 is now ready. It is published by Messrs. W. Butcher and Sons, Ltd., of Camera House, Farringdon Avenue, London, E.C., price 6d. In addition to the usual diary, it contains blank spaces for a list of slides, a directory of dealers in lanterns and apparatus, and a quantity of useful information for lanternists.

THE MANCHESTER PHOTOGRAPHIC Society hopes to be into its new premises in Carr Street, Blackfriars, early in the new year. The fresh quarters are in the centre of the town, and on the ground floor, and their possession will involve considerable outlay. There is no intention of raising the subscription, but the society is appealing to its members for contributions towards the fund for furnishing, so that the reserve should not be depleted too much. An increased membership, in consequence of the change, is looked upon as certain.

WRATTEN LIGHT FILTERS form the subject of a sixpenny booklet just issued by Messrs. Wratten and Wainwright, Ltd., of Croydon. The extent to which this firm has carried the production of special light filters for particular purposes is shown by the fact that over seventy different light filters are described in the book, with details of the nature and stability of each, and a reproduction of its absorption spectrum. Although in the great majority of cases the filters only have a very limited application, the book is an extremely interesting one, as showing what can be done in the way of isolating light of any particular colour.

A MOST USEFUL BOOK has just been published by Messrs. R. and J. Beck, of 68, Cornhill, London, E.C. It is entitled "The Photographer's Notebook on Lenses," and, although priced at sixpence, and well worth a shilling, it will be sent gratis and post free to any reader of *Photography and Focus* who sends a postcard to Messrs. Beck for a copy. Although, of course, it is intended to further the sale of the Beck lenses, it is not by any means a mere advertisement or price list, but is a clearly-written description, extending to eighty pages, of the photographic lens and its use, fully illustrated, and lucid even to those who know nothing of the subject. The author is Mr. Conrad Beck, and the book one which every reader of these lines should send for.

Making up the Acid Fixing Bath. A Point in Chemistry.

By W. L. F. Wastell. Special to "Photography & Focus."

IT would seem as though, for once in a way, our sunburnt friend of the "Dark Room Dialogues" has made a slip. Even Jove nods.

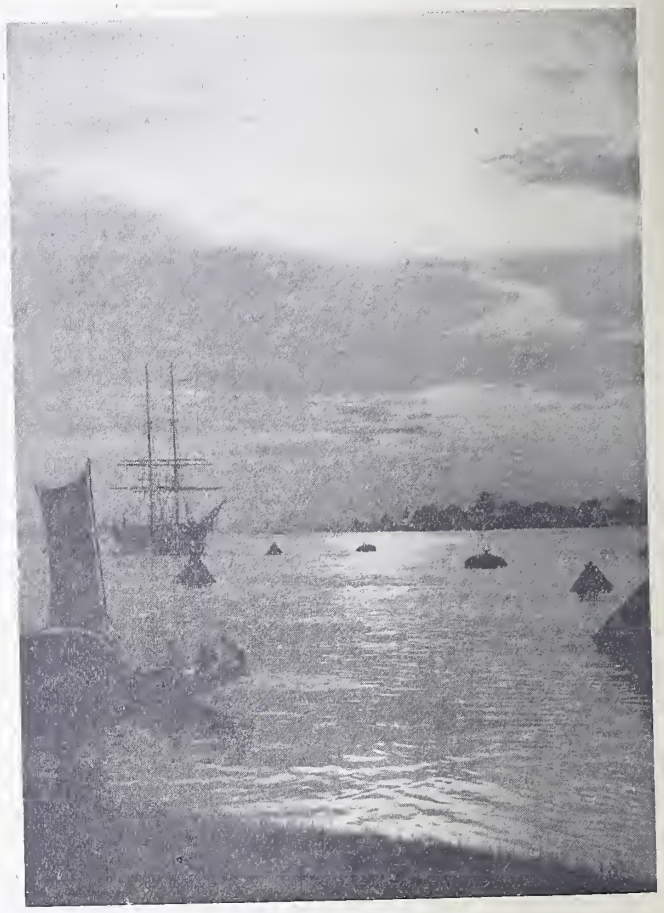
In speaking of the making up of an acid bath in such a manner that the sulphur should not be precipitated from the hypo solution, he stated that in a mixture of solutions of hypo and of sodium sulphite any added sulphuric acid would attack the former in preference to the latter.

Now, in preparing a bromide print for pigmenting by the bromoil process the bleached print has to be fixed in a weak hypo solution, and it has previously been treated with a 5% solution of sulphuric acid. As the intermediate washings in this process are necessarily somewhat perfunctory, it is inevitable that some trace of acid will be left in the print. This trace of acid would be quite sufficient to precipitate sulphur, and so stain the print, on immersion in a plain hypo bath. To obviate this, the practice has been to add to the hypo solution a small quantity of sodium sulphite. The reason given for this is that the action of the sulphuric acid would exhaust itself on the sulphite, and the hypo would remain unaffected. In practice this contention has apparently been justified. At any rate no precipitation of sulphur takes place.

It will be seen that this is diametrically opposed to the sunburnt man's theory. Without troubling to consult authorities it was an easy matter to carry out a simple practical test. Three approximate 10% solutions were made up of hypo, sodium sulphite, and sulphuric acid respectively. The addition of a small quantity of the acid solution to some hypo solution resulted in an immediate precipitation of sulphur; but an admixture of equal parts of hypo and of sulphite solutions withstood the addition of a considerably greater quantity of the acid without the formation of a precipitate either at the time or some hours afterwards.

By the way, those who are in the habit of using an acid fixing bath at all may be interested to know what has been said on the point by Mr. Chapman Jones, an authority whose *obiter dicta* on photographic matters can hardly be ignored. He says ("Science and Practice of Photography"): "It must be insisted on that an acid fixing bath of any kind is a grave source of danger. The negative may appear satisfactory for some time, perhaps even improved by the use of it, but no one can tell what hidden possibilities of change remain in the film."

Against this statement may be set the fact that the writer, in common with hundreds of other photographers, has been in the habit of adding a small quantity of sodium metabisulphite to the hypo bath for the fixation of lantern slides. As in the course of years no deterioration of any kind has been observed in the slides, it is fair to assume that the danger suggested is probably extremely problematical, and as long as the dangers are only "possibilities," and "hidden" at that, there seems to be no great cause for alarm.



Sunset on the Hugli River, Calcutta (see page 299). *Mrs. G. Wilson.*

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611. Holborn.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

SUBSCRIPTION.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
Twelve Months	6	6	Twelve Months	10	10
Six Months	3	3	Six Months ..	5	5
Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

REMITTANCES.—Postal Orders, Cheques etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d, minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o. PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

Composition in Landscape Photography.

BY CECIL FENTON. *Special to "Photography and Focus."*

THE photographer of landscape feels the limitations of his process more than any other. In portrait and figure work his subject is very largely under his control all the time. Pose, costume, lighting, and arrangement are all matters which he may to some extent at least regulate; but with landscape he can do little more than select his point of view, and what his picture shall include from it, and use such control over the lighting as can be exercised by the choice of the time of day.

Fortunately, he finds all around him material for landscape pictures, so that his opportunities for selection are plentiful if his powers of arrangement are slight. It may therefore be well to review some of the considerations which are involved in the making of such a landscape composition.

Puzzled Why he Took it at All.

The commonest fault of the landscape photograph is the evident lack of aim of its producer. He has apparently seen some view which pleased him, and without staying to think if the pleasure he derived from it had any source in its form or arrangement which could be embodied in a photograph, he has turned the camera towards it and exposed a plate. Very often the charm of the picture has been almost entirely one of colour, which is lost completely in the photograph; and, until one recalls that the colouring of the scene must have been beautiful, it is very difficult to guess what induced the photographer to take it at all.

Then there are a number of subjects which are chosen because they have come to be regarded as conventional pictorial topics. A ruined castle, a rustic bridge, a quiet pool with the trees faithfully reflected in its surface—these seem to exercise an irresistible attraction to many workers, and some of the best known of such subjects are photographed incessantly by amateurs from one end of the year to the other. There is a kind of accepted doctrine that they make pictures; hence we call them picturesque, and draw, paint, and photograph them *ad nauseam*.

This popularity is a positive hindrance to their usefulness as pictorial material, since it so familiarises everyone with all the possible aspects of these subjects that anything like a personal view becomes almost impossible. The photograph is the conventional photograph, and ends there.

General Views are Unsuitable.

A general view is not suitable as the subject of a landscape picture; it must have some topic of a definite, limited kind, and that subject must be in the foreground, or, at any rate, not further away than the middle distance. While it does not do to formulate rules, it will at least be found that in this respect all the best pictures are alike; they all have their main point of interest fairly near, if not actually in, the foreground.

The subject of the picture, it should be remembered, need not be some definite tree, or stream, or building; in many of the most delightful of landscape pictures it is not an object, but an effect. The play of sunlight on an old wall, or on a footpath, the broad shadow of a tree, the varied reflections.

From a Distant Reader.



A Country Road in South Africa. *By J. K. Thompson (Pretoria).*

from a rippled surface. These are only a few of the materials which await the picture-making photographer, and repay his labour far more than a general view of Windermere, or Conway Castle from the bridge.

Study Picture Postcards.

It has been said that the first thing a photographer should do is to study carefully all the picture postcards of the district in which he is thinking of doing some work. They will show him the stock views in the stock manner, and he can then see what it is that he would do well to avoid.

This is not to run down the picture postcards as such—quite the opposite. It is a testimony to the way in which they record impersonally the objects of interest in the neighbourhood. If it is the photographer's desire to do this, he can imitate the postcards; but if his bent is picture-making, he will avoid them as recording scenes in which his own personal expression will be hampered.

Ugliness of Form.

Ugliness of form is a common mistake. The principal object is often a tree trunk, and, however beautiful may be the gradation of tone on the lichen-covered bark, it will not redeem the form if this is the straight sided cylinder, cut short at the top of the print, which so many of such tree trunks appear. This shape should always be broken in some way. The gradual curving outwards of the roots will often help, and a projecting bole or branch may also be useful. If we cannot escape the more or less parallel lines of the trunk, we may at least see that by including some foliage above, they do not run straight out of the boundary of the picture.

The subject selected, it has to be so arranged as to be properly emphasised in the picture. It is not enough for the photographer to determine that a certain tree trunk shall be the principal object in his composition; he has got to make it so, and no means by which this may be accomplished should be neglected.

For one thing, it should contain the strongest contrasts of the whole picture. This does not mean to say that both the highest lights and the deepest shadows should be there, but that the greatest differences, in tones that are in immediate juxtaposition, should be used to concentrate attention on the principal object. As a general rule, the highest light should lie in it, since the eye is attracted by a strong high light; and it must also have fairly deep shadows, to secure contrast. But the deepest shadows in the picture are not necessarily placed in the principal object.

Differential Focussing.

Another way by which attention is concentrated upon it is by focussing the principal object sharply, and leaving the rest more or less diffused. It is very easy to overdo this, as some of the pictures by Dr. Emerson have shown, and, by getting some unimportant details very blurry, actually drawing attention to them rather than the reverse. This method is perhaps used as fully as it is desirable to use it, when the more distant parts of the picture are allowed to be quite soft and diffused in focus, there being comparatively little difference in sharpness between one part of the foreground and another. Anything very much out of focus in the foreground should be carefully avoided, as it is certain to attract undue attention to itself.

The principal lines of the composition also should lead the eye towards its subject. This does not mean that a picture should resemble a railway map with all the lines converging on a great town; that would be much too transparent an artifice. It is difficult to formulate anything more definite on this aspect of the subject, as it is the lines of the composition in landscape which are least subject to the photographer's control. Very often the most that he finds himself able to do when he is arranging his picture is to suppress or to minimise or to break up a few of the lines that would be most harmful to the composition.



EVENING. BY BASIL F. HALLETT.
Awarded the Silver Plaque in the Special Subject Competition.

Emphasising the Subject.

But there is one way in which emphasis may be placed on the principal part of the picture, which must be employed to the utmost if we are to achieve success. It is in securing the due subordination of the rest of the subject, and in the omission of everything that is likely to be unduly assertive, if it cannot be toned down in any other way than by omission.

Much can be done when the picture is being arranged; and a good deal can be effected in the printing, by manipulation. If the shadows are lightened and the high lights toned down a little, the parts on which this work is done at once become less conspicuous. It must not be overdone, however, and all that is needed can often be accomplished merely by sunning down the high lights, or by a little work on tracing paper on the negative.

It is a mistake to allow the highest lights to be in some subordinate part of the picture, often right on the margin. The commonest case of all is when a large area of blank white sky is allowed to occupy the greater part of the top of the picture. If it cannot be toned down and made properly subordinate to the rest, it is better to trim it off altogether.

Scattered Lights.

Many good subjects are spoiled by the way in which all sorts of scattered lights are allowed to destroy the breadth of the effect. The surfaces of many leaves are very shiny, and when they are viewed in bright sunshine they may appear in the picture as a lot of brilliant spots of light scattered over dark shadows. Or in woodland subjects there may be a lot of spots of sky shining through the branches. For a picture to be successful it is quite essential that its light and shade shall be composed of a few broad masses of simple and agreeable form, and this spottiness is a foe to any such effect. The spots of sky can sometimes be toned down, but the sunshine on the leaves is not dealt with so easily, and must be watched for when the picture is being arranged, and avoided.

I may say I am not a believer in "rules of composition"—the term implies some authority laying down laws for subordinates, and authority is a deadly foe to artistic expression. It is better to regard such things as general conclusions based on a study of successful works; and I can hardly do better than by pointing out, in conclusion, that from the careful study of what is recognised as the best work will be drawn the most helpful lessons and suggestions which the pictorial worker can receive.



HER GREAT GRANDMAMMA. BY T. LEE SYMS.

The original of this picture is No. 41 at the Exhibition of the Royal Photographic Society.

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

"SUNSETS," said Wilde, "are quite old-fashioned. They belong to the time when Turner was the last note in art. To admire them is a distinct sign of provincialism of temperament."

If that is so—and it may be fair to mention that the passage occurs in an essay on "The Decay of Lying"—there must be a terrible lot of provincially-minded persons in the photographic world, for, after the family group, the sunset is surely the beginner's favourite motif. Quantities



Sunset (No. 1). By A. J. Knight.

of sunsets arrive in my print-parcels weekly, whether the theme of the current competition has been "Cloud Effects" or not. Though I am rather weary of them, I am bound to confess that my temperament is sufficiently provincial to see that many of them must have been, to the eye, wonderfully impressive, and a tremendous temptation to the photographer.

And—I again quote Wilde—"the only way to get rid of a temptation is to yield to it." That is why it is just as well that the beginner should indulge, for a while, his passion for snapping any and every sunset; in the long run he will get rid of the temptation precisely because he has so often yielded to it. I do not say that he will entirely abandon sunsets. But he will know which to photograph and which only to admire.

Furthermore, he will know when he has made a bad photograph of a sunset, and will not be fascinated by the theatrical parody produced by under-exposure. He will learn firmly to discard such things as my first example, "Sunset" (No. 1), which is as violent as the explosion of a bomb in mid-air, and therefore as incorrect a rendering of the calmness and majesty of such a scene as could well be imagined.

It is admissible that some sunsets are dramatic-looking, and even ominous and disturbing to the senses. But they are silent, slow, and full of glamour. This print is positively rackety. It looks like a snapshot of a bang, if I may so express myself. And the clouds, instead of being impalpable and floating, resemble fragments of some strange solids, which have been sprayed over the firmament by the bursting shell and are about to plop into the sea.

All of which is partly due to the choice of this particular type of sunset; but far more to the commonplace fact of sheer ordinary everyday under-exposure.

The blacks in this print are too black, the whites too white; the sea is ink instead of water, the clouds are tin instead of vapour. (Why, oh why, should not a sunset be as carefully exposed upon as any other sort of subject? I know not. Alas! I do know that under-exposure is a sort of fetish with most sunset-hunters, and their productions bear as small semblance to the luminous and delicate reality as chalk does to cheese.)

"A Tropical Sunset at Sea," which its maker tells us was taken in the Bay of Bengal, is a curious effect, as



A Tropical Sunset at Sea. Bay of Bengal.

dramatic in its way as "Sunset," yet carried out in clear and translucent tones, never nearing solid black. I do not know that I should call it, or indeed the preceding print either, a picture in the very serious sense of the word, but it is at least an adequate memento of what must have been a highly inspiring sight.

The reflections of this tropical sunset are quite remarkable, while the faintness, amounting virtually to invisibility of the horizon, imparts an unreal and fairy-like feeling to the vision which is distinctly unique.

A quiet sunset may be dramatic, if treated properly. There is, to my mind, real drama in "Sunset" (No. 2), which is reproduced below.

This, it may be retorted, lies less in the sunset than in the boats and the lighthouse, outlined so prettily against the dusky heavens beyond. But it is rather in the treatment of these items than in their mere presence that the successfulness of this print may be sought.

The group of boats in the foreground is well placed, and the top line of them is nicely broken by the standing figure, whose darkness, again, properly throws back the line of the quay and emphasises the veil of atmosphere; emphasising, too, the remoteness of the canopy of darkening sky. All of these foreground notes might have been rendered dead black and featureless if the picture had been so under-exposed as "Sunset" (No. 1) was; and the values in the sky could have been similarly exaggerated into staginess.

"At Sundown, Hongkong," is pleasantly exotic, and an obvious attempt to produce a travel memento which shall not only perpetuate a memory, but be artistic as well. There is detail, too, in the foreground, and in the Japaneseish tree. But there is not much sundown! However, we ought, perhaps, to be thankful for that, rather than complain, and I, for one, am always interested to see pictures which come from some distant land, for a change, even though they be technically less good than this.

Another picture from the East is "Sunset on the Hugli River, Calcutta (reproduced on page 294), and though here, once more, we have flagrant under-exposure, it is almost forgiveable by reason of the quietude and dignity of the sky. The ripples on the water are a little frozen-looking, and the foreground and near boat far too heavy, but with it all there is a grandiose quality about this work which is quite sufficient of itself to carry off the faults of the picture, and I should have been genuinely sorry to miss it.

Let its maker take note, however, that in India there is no law of the Medes and Persians against obeying the mandates of Watkins or Wynne, and remember that under-exposure will spoil any picture, however good the subject may be.

Sunsets in general will never become as old-fashioned as the too-epigrammatic Wilde would fain have had us believe, and in our inmost souls we don't want them to be. But, as sure as fate, the under-exposed lie which is still so often labelled Sunset by the photographer will become old-fashioned—as will all the twistings of photography's wonderful technique into libels on nature.

And I cannot refrain from hoping that the readers of *Photography and Focus* may be in the van at the routing of the old-fashioned pretence at sunset and the establishment of the genuine thing—beautiful because true.



At Sundown, Hong Kong. By Dr. G. P. Morgan.



Sunset (No. 2). *By R. G. F. Banks.*

SOLUTIONS OF HYPO. Mr. B. H. Lomas writes: "In *Photography and Focus* for, I think, August 31st there is a note (I quote from memory) that a pound to the pint of hypo is an impossible strength. I may say I always mix my hypo in this proportion, and in cold water. It should be frequently stirred, or the hypo suspended in the water. If this is done, no difficulty will be experienced in getting the salt to dissolve, and it will not crystallise out, even in frosty weather. This stock solution may be diluted with its own bulk of water for plates, with three times its bulk for bromide and gaslight papers, or with four times its bulk for P.O.P." The statement referred to was that although it was possible to make up these very strong solutions, weaker ones were preferable.



DARK ROOM DIALOGUES

IT was Saturday afternoon, and the sunburnt man found Oliver at home, busy in putting some tissue paper on the back of a large negative. Lawson was watching him from behind a large pipe, which he smoked with the calm that a Saturday afternoon suggests.

"Been making an enlarged negative?" was the somewhat needless enquiry, as the newcomer looked at the 15 × 12 plate which Oliver was handling so carefully.

"Yes; and I am rather pleased with it, I must confess. It wants a little work on it to make it just right, but not very much; and I shall very likely be able to get a print this afternoon."

"What are you going to do about a printing frame?" enquired Lawson. "You haven't got one that size, have you?"

"No; and, what is more, I do not want one. There is no need for a frame, when one is working a large size like this; a drawing board will do all that is needed."

"I don't quite see how you can use a drawing board," said Lawson. "What is going to hold the negative down on to the paper, for one thing; and how can you open the back so as to watch the printing, for another?"

"I'll show you a reply to both in two ticks," replied Oliver, as he carefully leant up his big negative where the gum might dry. He left the room for a moment, and returned carrying a board and a large piece of thick plate glass, which his friends recognised as having done duty many a time both for glazing prints and as a support or surface to cut upon, when he had any print trimming to do.

"If you feel this board, Lawson," he said, "you will find three spikes on it, which have been made by driving in three needles from the other side until their points projected not quite as much as the thickness of a negative, and then breaking off the rest."



Through the Woods. *By R. W. Hogben.*

"I can feel them as well as see them," observed Lawson, passing his hand over the board. "It would make a nice thing to leave about for some one to sit down on."

"Well, they make this board a printing frame at once. You will see that two of those points are about ten inches apart, and the third is well to one side of the other two, and about nine inches from the line joining them. I put them in those positions so as to be suitable for twelve-tens; but they answer for fifteen-twelves or larger just as well. That negative is a fifteen-twelve. I cut two or three pieces of newspaper a little bigger than it is, and put them on the board, with the points just sticking through the paper close to two of its edges. Then I take a piece of carbon tissue about 16 × 13 and stick it over the points as well, and as it is rather obstreperous stuff I fasten it down at its four corners with drawing pins. Then I put the negative on the top of it, push it up to two of the points, and slide it along until it is stopped by the third, put the plate glass on the top of all to, press it all down, and there you are!"

"That is all very well for carbon printing," said Lawson, "where you do not want to keep looking to see how the printing is going on; but what about silver, or gum, or platinum? Your printing frame, it seems to me, is not of much use then."

"That's just where you make a mistake," replied the other. "The needle points are put in expressly to allow me to do so. When I want to see how the printing is going on, say with platinum, as that is the only other process I work in this size, I just lift the plate glass and negative off, and then I have got the whole of the print before me. Then I put them back and go on printing."

"Do you mean to tell me you can put the negative back in exactly the same place on the paper again?" persisted Lawson.

"Certainly. I've often done it."

"I should never have thought it possible."

"It is the three points which do it." Oliver explained. "So long as the negative is always laid with its edge against the two of them, and then is slid along, resting against those two until it is stopped by the third, it must go back into exactly the same place every time."

"The idea is an old one," said the sunburnt man, "but you seem to have improved on it, Oliver, by keeping your points short. That is a good idea, since it lets you put a big bit of plate glass down over the whole lot, to press it all into contact. In all the boards I have seen, the points have stuck out more, and so the plate glass could only be pushed up to them just as the negative was, and that is not always convenient."

Oliver's next proceeding was to take off the shelf a little bottle containing a black liquid, and provided with a brush fastened to the cork.

"What have you got there?" enquired Lawson.

"Asphaltum varnish."

"Brunswick black," added the sunburnt man.

"Well, not exactly Brunswick black," said Oliver, "as that does not dry so quickly as I like. It is a superior sort of Brunswick black I keep for jobs like this."

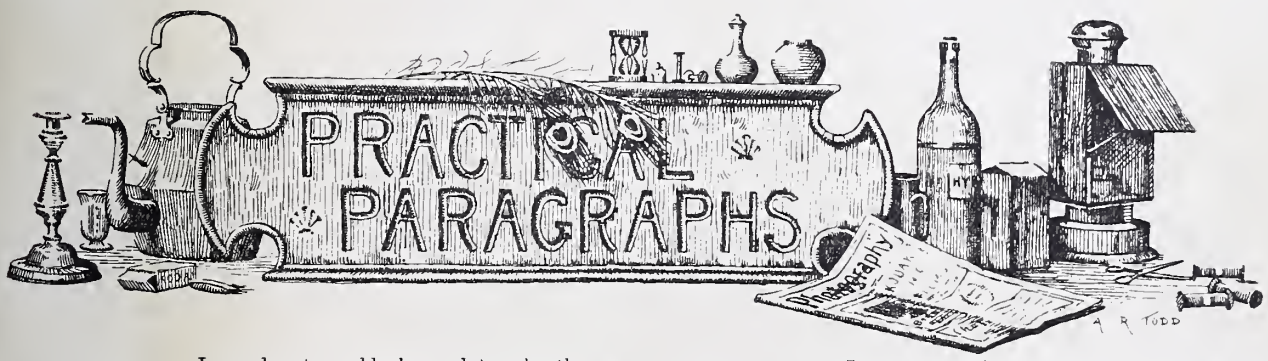
He took down the large negative, laid it carefully, film side downwards, on a pad of newspaper, and drew a line with the black varnish all round its edges, extending inwards about an eighth of an inch, observing as he did so, "That will give it a good safe-edge."

"I never use a safe-edge in carbon printing," said the sunburnt man.

"That is because you use an ordinary printing frame," said Oliver, "and the frame itself acts as a safe-edge. With this arrangement of mine I am obliged to have one. There is one more thing I must do," he observed, "before I put it out to print, and that is to mark the tissue." So saying, he put the negative down on the tissue which he had pinned to the board, and ran a pencil all round it.

"What's that for?" enquired Lawson.

"I shall trim the tissue to that," he replied, "before developing, and so get rid of the defective edges and the holes made by the needle points." Then he arranged the negative and plate glass on the board, and carried the whole out into the garden, his two friends following him.



BLACKENING SHEATHS AND BRASSWORK.

In order to rehlacken plate sheaths or the brasswork of a camera which has worn bright, the whole of the original blacking must first he polished off, using, to begin with, fine glass paper, and finishing up with tripoli. The hlackening solution is made by dissolving two hundred grains of silver nitrate in an ounce of water, and two hundred grains of copper nitrate in another ounce. The two solutions are mixed shortly before they are required, and the clean metal work is dipped in them and put aside to get dry. When dry, the articles are heated until their surface assumes a fine black colour. A sand bath is a convenient means of carrying out the heating; or, in the case of small articles, they may be held in a Bunsen burner. It is difficult to give the metal as smooth and uniform a black as is done by the camera makers, as this is the result of the dexterity that is acquired by long practice; but the coating, if it does not look so well, will act well enough.

* * *

A LIQUID LIGHT FILTER.

Stained gelatine cemented between glass is commonly used as a colour screen in orthochromatic work in this country, while in the United States the liquid light filter has enjoyed a great popularity. For picture copying, flower photography, and other work done at home, the liquid light filter is very suitable, and a plain solution of potassium bichromate answers excellently. A liquid which is even better, when there is not much red in the subject to be photographed, is made by adding strong ammonia to the potassium bichromate until its orange colour is changed to yellow. I have not found any need for optically worked glass cells to hold the solution. My own is made by cutting a large circular hole in a piece of thick sheet rubber, 3¼in. × 3¼in. square, and in the middle of one side cutting an opening from the outside to the circle. The rubber is coated on both sides with rubber solution as used for bicycle tyres, and while tacky two perfectly clean lantern slide glasses are pressed into contact, one each side, and held with a couple of bulldog clips. The cell so made will be found to be perfectly water-tight, and can be taken to pieces at any time for cleaning.—F. H. WASHINGTON.

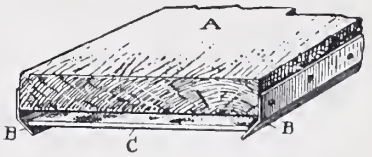
MEASURELESS MEASURING.

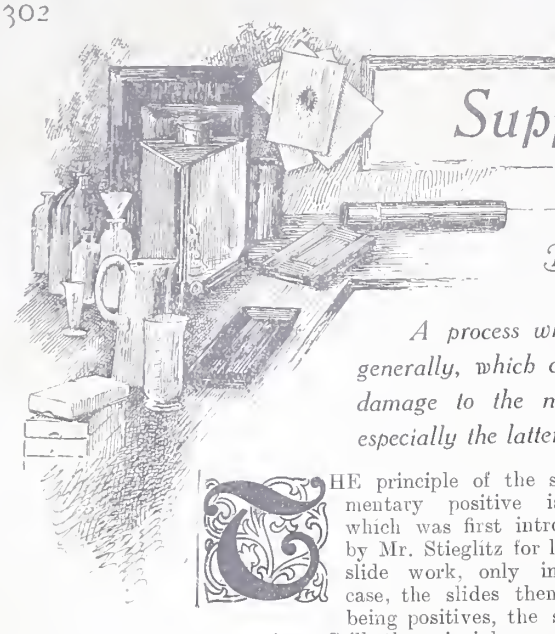
It may sometimes happen that the photographer wishes to obtain an ounce of water and has not got a measure handy. If he has scales and weights, the ounce may be weighed. All that has to be done is to place in one scale pan a suitable vessel and in the other sufficient weight to balance it. An ounce weight, avoirdupois, is then added, and an ounce of water weighed out.—C. F.

* * *

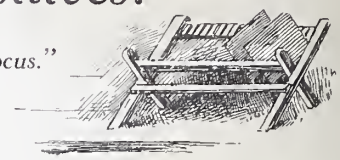
A WASHER FOR NEGATIVES.

Mr. Thomas H. Holmes, writing in "Camera Craft," describes an ingenious and simple form of apparatus he has made for washing negatives quickly by floating them face downwards on the surface of the water in a bath. As the plates will not float by themselves, a dozen blocks A were cut out of white pine or other suitable light wood, making them one inch thick and a little larger than the size of the plates. To each of the two longer sides a thin strip of copper or zinc B was fastened by means of brass brads. These strips were an inch wide, and a trifle shorter than the side of the block to which they were tacked. More than half the width of the metal was allowed to extend below the wood, and this portion was bent towards the centre of the block, as shown, at an angle of forty-five degrees. This forms a pocket into which the negative C can be placed after fixing, with its glass side towards the board. The whole arrangement, negative downwards, is then floated upon the water. The hypo is washed out of a plate so suspended very rapidly. The arrangement is very cheap, and there is absolutely no danger of grit or sediment settling upon or adhering to the wet film, as this is kept facing downwards during the whole of the washing. If by any chance the water should drain away from the bath, the projecting metal edges will prevent the film of the negative being injured, which might happen were it to come into contact with the bottom of the bath or tank.





Supplementary Positives.



Special to "Photography and Focus."

By G. H. Bethell.

A process which will modify the contrasts of a negative, either locally or generally, which can be used without any permanent alteration or any risk of damage to the negative. Applicable both to contact printing and enlarging, especially the latter. Useful also in slide making. Full working details are given.

THE principle of the supplementary positive is one which was first introduced by Mr. Stieglitz for lantern slide work, only in that case, the slides themselves being positives, the supplementary plate was a negative. Still, the principle was there, and once that having been enunciated, its application to other forms of photographic work naturally followed. Perhaps, before going more into detail as to how supplementary positives can be made, and how they are used, it would be well to explain what a supplementary positive is. Suppose we have a negative which has been properly exposed, but considerably over-developed. It may give a strong contact print in platinum or carbon, but it is much too harsh to use for enlarging. In the dark room an ordinary plate is laid upon it, in a printing frame, film to film, and an exposure is made, and a positive developed up, taking care to keep it very thin. When the positive is fixed washed and dried, and placed in contact with the negative, the two images being carefully registered, the negative will look very slightly more opaque, but its contrasts will all be lessened.



THOUGHTS. BY MISS M. E. HILL

Awarded a Certificate in the Beginners' Competition.

How the Positive Acts

It is easy to see why this is so. Wherever the negative is very dense there is little or no deposit on the positive. Wherever it is at all transparent there will be deposit on the positive, which will make that part less transparent.

So it follows that however thin the positive may be made, it is sure to increase the general opacity of the negative, although the contrast of the negative is lessened, and the resulting enlargement may be made as soft as we wish, even to the complete suppression of all the picture on it, if we care to go to the *reductio ad absurdum*.

The power which such a supplementary positive conveys is one which does not seem to have been used as it might. It forms almost the only method by which we can locally modify contrasts on a negative that is to be enlarged. The use of matt varnish and of tissue paper is not possible in such circumstances, as the hand work would be magnified, and would show. But by making a supplementary positive, we can get over all this.

Local Reduction of the Positive.

If there is any part to be softened we can effect it by taking the positive and reducing all the other parts with ferricyanide and hypo, until there is no image left upon them at all. This is easily done by applying the reducer with a brush, holding the positive near a tap with running water, and slipping it under the tap from time to time to prevent the action of the reducer from spreading. Any hard lines in the reduction should be softened by going over them with a brush with dilute reducer.

It is also possible sometimes to follow details of the picture, reducing right up to the edge of the detail, and letting its boundary form the boundary line of the reduction. To do this, the reduction should be effected upon the positive while its film is dry, placing it level on a sheet of white paper, and following the outlines carefully with a brush. All the little irregularities of the outline should be dealt with first, and when these are represented by clear glass the bigger areas may be reduced. Unless the positive is too dense altogether, there is not much fear of the outline of the reduction showing in the enlargement.

A little thought will show the photographer that it is possible to control not only the extent of the alteration introduced by the supplementary positive, but also to control its character.

Controlling the Gradation.

For example, if the exposure of the positive is kept short, but the development is pushed on, we shall get a positive that is similar in character to an under-exposed negative. That is to say, it will have a good deal of vigour in the parts which lie under the shadow parts of the negative, but the high lights of the negative—that is to say, the shadows of the positive—will be represented by clear glass. Such a positive, while exercising very little effect on the high lights of the negative to which it is applied, will make the shadows appear less heavy in the print, although it will not increase the detail visible in them.

On the other hand, by giving a full exposure to the positive, and developing it lightly, we can get a result which will simply flatten the whole of the contrasts a little. The process will be found to be a very elastic one, and a few trials will serve to show better than any lengthy verbal description the uses to which the method can be put, and the way in which the positives can be varied to suit the requirements of each special case.

Working Details.

There is not much that need be said upon the details of making these supplementary positives, as the process is a very simple one. Any make of plate may be used, but the easiest will probably be found to be lantern or transparency plates. My own are generally made upon the Ilford "black tone" plates, which are bought ready backed. The developer used is hydrokinone, as this gives a fine black deposit, the density of which is more easily judged than when the image has a brown or greenish black colour.

It is most important to give the plates a washing of at least a minute under the tap between development and fixing, or stains may result.

The tendency at first is to make the supplementary positive too vigorous. This is best avoided by having plenty of yellow light in the dark room, and stopping development as soon as the plate, on looking down at it as it lies in the dish, appears to have about as much contrast as a good bromide print should possess. It is easier to judge in this way than by looking through the positive, which also would necessitate clearing off the backing, an operation more conveniently performed after the plate has been developed and fixed.

Contact Printing.

A supplementary positive is not so useful for contact printing, as the thickness of the glass between the positive and the negative to which it is applied makes its action not so definite and precise; but there still are occasions where it may be found of use. For this purpose, in making the positive, the plate cannot be used backed, as its glass side, which should be carefully cleaned, has to go in contact with the film side of the negative. This gives an image which is slightly diffused in definition. The positive so obtained is attached with its film side in contact with the glass side of the negative, and to avoid any apparent want of registration the printing should be done in a well diffused light.

I have succeeded very well in softening the contrasts of a negative in this way; but it is certainly easier to get a good result by using the positive in contact with the negative, film to film, and enlarging from the combination, as has been described above.

It will be found that there is no difficulty in registering the two plates. They are merely held up to a good light and slid over one another until the fit is seen to be exact, and then bound together with gummed strips of paper.



Daydreams. *By Allen C. Nidd.*



LAST YEAR'S LEAVES.

The original of this picture is No. 120 at the Exhibition of the Royal Photographic Society.

BY WARD MUIR.

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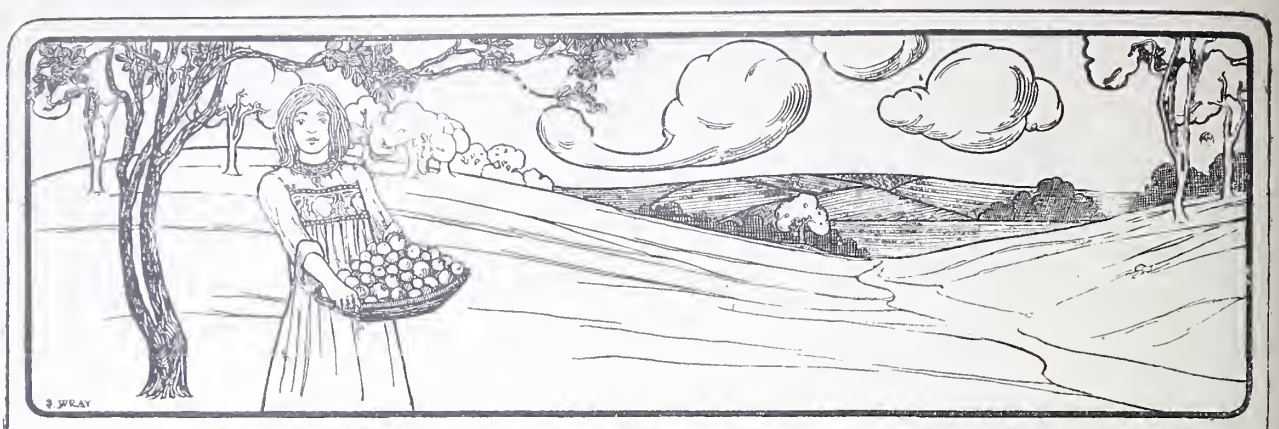


REG. TRADE MARK

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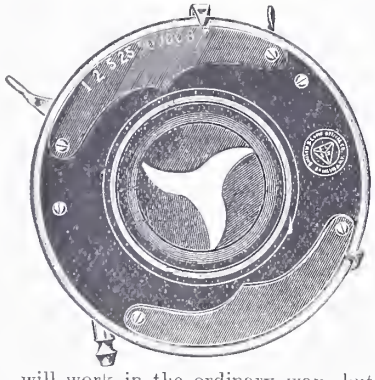
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The Latest in Apparatus & Material.

The Bausch and Lomb New Auto Shutter.

THE shutters made by the Bausch and Lomb Optical Co. are known wherever the camera has made its way, and of all hand camera exposures a very great proportion are made with one or other of the patterns issued by this firm, the most popular being the well-known Unicum. The New Auto shutter, which has just been put upon the market, like the Unicum, is a between-lens instrument, containing in itself both shutter and iris diaphragm.



The general appearance of the New Auto can be gathered from the illustration herewith. The upper lever on the left is the shutter release, the lever corresponding to it on the right being an automatic locking lever or security bolt. When this is in the position shown in the illustration, the shutter will work in the ordinary way, but when this lever has been pressed down the shutter is locked, and if by any chance the pneumatic bulb is squeezed or the lever pressed the plate is not exposed.

The advantage of such a lock or security bolt, especially with roll film and similar cameras in which the sensitive material is not usually protected by the shutter of a dark slide, is too obvious to call for any further reference on our part. The connection for the ball and tube, and the index of the diaphragm, are seen below. The illustration also shows the way in which the leaves of the shutter separate on opening—a method which is claimed to give not only great efficiency, but also greater evenness of illumination. A feature of the shutter which is to be highly commended is the very complete way in which all the moving parts are enclosed in the case so as to prevent as far as possible any chance of them getting clogged by wet or dirt.

The graduation of diaphragm shutters is a much discussed topic. It is recognised very generally that in the case of the cheaper shutters the speeds marked upon them are little more than nominal, except in the case of instruments in which the speed is altered by altering the size of the opening—a pattern which evades the one drawback by introducing another, namely, the shutter becoming less and less efficient as the exposures are shortened. The New Auto shutter is graduated 1, $\frac{1}{2}$, $\frac{1}{5}$, $\frac{1}{25}$, $\frac{1}{50}$, and $\frac{1}{100}$ second, but the makers very straightforwardly point out that these are nominal speeds only! They say: "The maximum speed is between the fiftieth and the sixtieth of a second; it is the quickest of any shutters at present offered in competition. We continue to mark the speeds from 1 to $\frac{1}{100}$ second, as is the custom of the trade, and must continue to do so until the public realise that none of the cheap shutters will give this speed, when we will gladly adopt our own system of marking actual speeds." This is a very frank and reasonable statement of the prevailing conditions, and it is for photographers themselves to bring about such a change.

The price of the New Auto shutter for quarter-plate and 5 × 4 cameras is 21s., an Antinous release being supplied for half a crown extra. The Bausch and Lomb Optical Co., we may remind our readers, is now quartered in this country at 19, Thavies Inn, Holborn Circus, London, E.C.

The "Abbeydale" and the "Record" Enlargers.

NOW that negative making, as far as many of our amateur readers are concerned, is being put on one side for the winter, attention is being turned towards enlarging and enlarging apparatus. Two enlargers which we have recently had an opportunity of examining are the "Abbeydale" and "Record," which are put upon the market by Messrs. W. Butcher and Sons, Ltd., of Camera House, Farringdon Avenue, London, E.C.

The "Abbeydale" enlarger is made in four sizes, one for negatives, taken in a Brownie, Maxim, Clincher, or other camera, which are decidedly less than quarter-plate in size, and useful also for projecting lantern slides, being fitted with a 4½in. condenser; the next size is for enlarging from quarter-plate, a 5½in. condenser being provided; a 6½in. condenser allows postcard and 5 × 4 negatives to be used; while the largest size, fitted with a condenser 8½in. in diameter, takes half-plates.

The quarter-plate "Abbeydale" enlarger, complete with lens, sells at £4, or without a lens at £3 5s. For this outlay the purchaser obtains a substantially built enlarging apparatus, with a large and well-ventilated Russian iron body on a polished oak base.

Both the Record and the "Abbeydale" enlargers are provided with a curtain at the back, which is of new design, and is remarkably effective in cutting off stray light. Carried on the baseboard and connected with the body by telescopic iron tubes is the condenser and carrier stage. This is provided with a rack and pinion for tilting the negative to cure any distortion in it; while a further rack and pinion carries the front and provides for the rough focussing. Fine focussing is generally effected by means of the rack and pinion on the lens itself. An orange glass cap is fitted to the lens, and a large window, fitted with yellow glass, in the door of the lantern allows the light to be observed.

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The price mentioned above does not include the illuminant, as this will depend upon the conditions under which the enlarger is to be used. Where there is a gas supply, an inverted incandescent burner, complete with support and reflector, can be fitted for 7s. 6d. When gas is not available, the Meta spirit lamp, which also uses an incandescent mantle, may be fitted at a cost of 10s. 6d., 15s., or 18s., according to the size of lamp required. An acetylene gas outfit for this enlarger costs £1 17s. 6d. For work where there is electric current, the Nernst lamp may be used.

The "Record" enlarger of the same makers is a somewhat similar apparatus, but of a more elaborate character, and therefore a little higher in price. For example, the quarter-plate "Record," with 5½in. condenser, but without lens, costs £4 15s. as against £3 5s. for the "Abbeydale," and there is a similar difference in the case of other sizes. The most distinguishing features of this most adaptable and convenient of enlargers are the fitting of rack and pinion both to the body of the lantern and to the front, so that the relative distance of light, condenser, and lens can be adjusted to a nicety with the greatest ease, and the adjustments that are provided for the negative carrier. This carrier, which is reversible, can be swung, raised and lowered, and tilted, all by means of rack and pinion. These fittings facilitate very much the various manipulations in enlarging from different negatives, and, in fact, the "Record" seems to be provided with every movement that the most enthusiastic enlarger can desire, and all under the most perfect control. Some of these movements may be luxuries rather than necessities, but they are luxuries which it is very pleasant to have at hand.

Those who wish to use their enlarger for projecting slides as well as for enlarging can have the necessary fittings provided for from 15s. to 35s., according to size. These include a smaller condenser, a slide carrier, and blocks to carry it. When slides are to be shown, the small condenser is substituted for the large one, the cone removed, and the body moved up closer to the condenser.

Enough has doubtless been told of these instruments to show how fully the needs of the photographic enlarger have been realised, and how well the best methods of meeting those needs have been thought out. It only remains to add that both the "Abbeydale" and the "Record" are substantially made and well finished.

An Atlas of Absorption Spectra. By C. E. Kenneth Mees.

THE title above is given to a book which has just been published by Messrs. Longmans, Green, and Co., and Messrs. Wratten and Wainwright, Ltd. It consists of reproductions in half-tone of the absorption spectra of about 170 different dyes, and of 72 different light filters. There is also a table showing the sources whence the dyes were obtained, whether each was acid or basic, and giving some idea of the stability of each to light.

In a few preliminary notes, Dr. Mees describes the arrangement used for obtaining the spectrum photographs. A Nernst lamp was employed with a compensating screen, which gave a fairly uniform spectrum upon a "Wratten Spectrum Panchromatic" plate, extending from wave length 7,200 to 3,900, or thereabouts; in some cases this arrangement was modified. In front of the slit was a tank divided diagonally into two by a partition. One side contained pure water, and the other the dye solution to be examined. In this way at one end of the slit there was only a very slight thickness of dye solution, while at the other there was about fifteen times as much. So that each photograph shows at a glance not only the general absorption of the dye, but the effect of different degrees of concentration.

The atlas is a book of very great use to those who are concerned in colour work, orthochromatic photography, and the use of light filters for various purposes, and represents a great deal of painstaking labour. It is just one of those things for which, although the need is great, the demand is so limited that the book is often never brought into existence. In this case, the photographs were made in the research laboratory of Messrs. Wratten and Wainwright, Ltd., for their own purposes, the publication being, as it were, an afterthought, upon which they are to be congratulated.



The Week's Meetings

MONDAY, OCTOBER 11TH.

Attercliffe P.S. "Enlarging." G. Walton.
South London P.S. "Home Portraiture." F. W. Memory.
Leeds C.C. "Evolution of the Landscape." H. Barrett.
Marylebone C.C. "Ramble in the Ardennes." H. G. Bailey.
Walsall P.S. "Tips for Tyros." W. T. Comer.
Bradford P.S. "Bromoil." W. H. Womersley.

TUESDAY, OCTOBER 12TH.

Leeds P.S. Social Evening.
Sidcup C.C. "Lenses, Stops, etc." Rev. F. C. Lambert.
Bristol P.C. Exhibition.
Nelson P.S. Affiliation Lecture.
Halifax C.C. "On the Fringe of the Austrian Alps." C. B. Howdill.
Glasgow S.P.A. "Autotype Carbon Process." R. Ure.
Birmingham P.S. "Some Protective Devices in Nature." W. Farren.
Hackney P.S. "Saints, Benedictines, etc." E. W. H. Piper.

WEDNESDAY, OCTOBER 13TH.

Edinburgh P.S. "British Architecture." R. Berry.
Croydon C.C. "Autotype Carbon Process." A. C. Braham.
Otley & D.C. & A.S. Whist Drive.

THURSDAY, OCTOBER 14TH.

Armley & Wortley P.S. Elementary Demonstration.
Dover Inst. P.S. Print Competition.

THURSDAY, OCTOBER 14TH (*continued*).

Preston C.C. Folio Print Criticism.
Leek P.S. "Beautiful Manxland." R. Hill.
Chelsea & D.P.S. Distribution of Awards.
Royal (Exhibition). "Pictures from Portugal." G. E. Thompson.
Liverpool A.P.A. "To the Algerian Sahara." J. C. Stitt.
Richmond C.C. "Tasmania."
Aston P.S. "Photology." R. J. Bailey.

FRIDAY, OCTOBER 15TH.

Ashton-under-Lyne P.S. "Enlarging."

SATURDAY, OCTOBER 16TH.

Small Heath P.S. Canal.
Kinning Park C.C. Nitshill.
Royal (Exhibition). "London through the eyes of Pepys." A. H. Blake.

MONDAY, OCTOBER 18TH.

Walthamstow P.S. Annual General Meeting.
South London P.S. Monthly Competition.
Bradford P.S. "Preparing the Exhibition Print." T. Lee Syms.
Stafford P.S. "Newest Printing Methods." Griffin, Ltd.
Preston C.C. "Autotype." T. C. Chandler.
Leeds C.C. "Flashlight Photography." F. C. Hart.
Royal (Exhibition). "Wild Birds and their Ways." W. Bickerton.
Walsall P.S. "Ensigna." F. J. Stedman.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

"TALKS ABOUT OLD LONDON."

THE "Evening News" in "Talks about Old London" reports a conversation with August Reading, an old man of 97. He says he worked for a daguerreotypist, a Scot named Henderson, who had a place near Temple Bar. "I found he was making more than £10 a day at the business. At that time a daguerreotype was the only kind of photograph there was, and Henderson was one of the only two in the business in London. For a picture about the size of a postage stamp he charged 5s.

"I kept my eyes open, and after a bit I was as good as he was at the trade. Once I went to Apsley House by order and took pictures of the Duke of Wellington and his friends. I remember seeing Lord Palmerston and Lord Fitzhardinge amongst them.

"The apparatus I used cost £50. At that time there was only one shop in London which sold such things. All the chemicals were very dear, and you had to make up all your own solutions.

"The Duke paid £5 for his picture, but we did well over it. We made and sold hundreds of copies at a guinea each. There must still be many of them about somewhere."

—"Photography and Focus."

JONATHAN

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JONATHAN FALLOWFIELD,

. . . . CENTRAL PHOTOGRAPHIC STORES, ...

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The Beginners' Competition for September. Awards.

THE entries in this are well maintained, both in number and quality, many of the pictures sent in being capital examples of their class. As usual, the weakest side of the beginners' work is to be found in the landscapes, at least four-fifths of the best prints in the whole competition being examples of portraiture or figure work. We should like to take this opportunity once more of urging those readers who compete to study carefully the advice and comments which we publish week by week in the "Critical Causerie." This section of the paper is intended to be directly helpful to competitors, by showing them the things which on the pictorial side should have their attention, and there are a great many prints in every one of these competitions which would certainly have been improved had their senders read and profited by the comments of "The Bandit."

AWARDS.

FIRST PRIZE. A signed copy of "The Complete Photographer." "A Frog," by George Hamlin, 4, Lorne Square, Leith, Scotland.

SECOND PRIZE. A free subscription to *Photography and Focus* for twelve months. "In the Swing," by Louis Steer, Fore Street, Bovey Tracey, Devon.

CERTIFICATES. "June," by John R. Charlton, 24, Balmoral Road, New Brighton, Cheshire; "The Cascade de Rougée," by C. B. Waterlow, Ropes, Fernhurst, near Haslemere, Surrey.

The Advanced Workers' Competition for September. Awards.

WE are glad to notice amongst the entries for this month the names of a number of new competitors, some of whom are sending work of considerable promise. The average of quality is a very high one, and in view of the state of things prevailing in the "Special Subject Competition," where we have felt ourselves compelled to withhold the first two awards, we have determined to give an extra silver and extra bronze plaque in this competition. The names of the recipients will be found below, the two winners of each pair of plaques being bracketed equal.

The punctuality with which those prints sent in to this competition, which are accompanied by stamps for return, are despatched with the criticism of a member of our staff has often been the subject of congratulation to us from competitors. As the number of entries increases, however, it becomes increasingly difficult to deal with the whole so promptly as before, and we would therefore ask those competitors who do not get their prints back quite so soon as usual to accept our apologies beforehand for any delay. No time is being lost, and we hope to get all off at any rate before the end of the month.

AWARDS.

SILVER PLAQUES.—"The Elvet Bridge, Durham," by H. E. Franzmann, 24, Hermitage Road, Westcliff-on-Sea, Essex; "The Hasting Day has run to the Evensong," by Harold G. Grainger, 41, Brudenell Grove, Hyde Park, Leeds.

BRONZE PLAQUES.—"The New Socks," by H. E. Galloway, Saltwell View, Gateshead; "Sunshine in an Old Cloister," by J. H. Williams, 123, St. Peter's Avenue, Kettering.

BRONZE MEDAL.—"The Lighthouse," by A. G. Warren, 33, Old Park Road, Palmer's Green, London, N.

CERTIFICATES.—"The Frozen Stream," by Fred Airey, 5, Mowden Terrace, Darlington; "The Dock," by M. R. Tozer, 560, Wells Road, Bristol.

The Special Subject Competition. Awards.

QUANTITY rather than quality has been the characteristic of the entries in the Special Subject Competition for a Harvest Scene; in fact, so noticeable is this, that we are compelled to hold over both the silver and the bronze plaques this month, as there is certainly no print in the competition which can be considered as worthy of either when the standard attained in these competitions formerly is borne in mind. While the tendency in both the Advanced Workers' and the Beginners' Competitions is distinctly upwards, we do not detect any sign of the same sort in those for set subjects, and we therefore propose to substitute for them some other kind of competition as soon as those which are at present announced have come to an end.

Particulars of this new competition will be announced as soon as the arrangements now in hand are completed.

Competitors would do well to read very carefully "A Critical Causerie," which deals with blank skies in landscapes, which we hope to be able to print next week. We have often referred to the disfigurement which results when a mere white patch, lighter in tone than any other part of the picture, is allowed to represent the sky. To quite ninety per cent. of the entries in this competition this applies, almost every print dividing up into two parts, a top white one of sky, a bottom dark one of landscape, the dividing line being generally hard and ugly. The awards are as follows:

BRONZE MEDAL.—"Reaping," by W. H. Holroyd, 17, Burngreave Road, Sheffield.

CERTIFICATES.—"Binding the Sheaf," by Ernest G. Hails, 55, Bath Street, South Shields; and "Harvest Scene," by H. Turner, 253a, Hurdsfield Road, Macclesfield.

Lantern Slide Competition. Open to All Readers.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal, and four Certificates in each Class.

Classes.

A. Landscape with Figures (including seascape, etc.

B. Landscape without Figures (including seascape, etc.)

C. Architecture.

D. Portraits and Figure Subjects.

E. Still Life.

F. Scientific Subjects.

Rules.

1. All are open to amateurs and professionals without any restrictions. All slides must measure 3¼in. by 3¼in.

2. One silver plaque, one bronze plaque, one bronze medal, and four certificates are offered in each class.

3. All slides must take any awards will become the property of *Photography and Focus*, and will be sent round amongst the societies and other such associations as apply for the loan of them. Any other slides may be selected by us for circulation in this manner, and will be paid for at the rate of half-a-crown each.

4. Competitors may send any number of slides in any class, and may be recorded as winning any number of awards, but no competitor will actually receive in the competition more than one silver plaque, one bronze plaque, one bronze medal, and one certificate, on which all his awards will be recorded.

5. Every slide must bear the competitor's name, its title, and its class. With the slides must be sent an envelope containing the name and the full address of the competitor, a list of the titles of all the slides he is sending in, and the class in which each is entered, together with a stamped and addressed label (not loose stamps) if the slides are to be returned if unsuccessful. But under no circumstances can the editor or the publishers accept any responsibility for slides sent in for competition or for their return, nor can slides be returned which are not *accompanied by* the stamps as above.

6. All carriage or postage must be paid by the competitor.

7. The last day for receiving is Monday, October 18th. The slides must be addressed "Slide Competition, the Editor, *Photography and Focus*, 20, Tudor Street, London, E.C."

8. Not more than one slide from a negative can be admitted, nor may any slide compete which has before won an award.

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"PURITY" must be the keynote throughout the entire process of the manufacture of photographic papers, otherwise it is useless to expect a perfect result. On the purity of the raw paper and its subsequent preparation for sensitising more depends perhaps than on any other part of the process, excepting only the quality of the emulsions.

Paper was first manufactured by the Chinese about the year 200 B.C., but such paper, even if now obtainable, would be quite unsuitable for photographic purposes. The paper of ancient China was made out of cotton and vegetable fibre, whereas, in our time, the best papers used for sensitising are made from linen rags, and when finished are, or should be, absolutely pure. Not only must the raw stock be faultless; but for most photographic emulsions it must before sensitising receive a further coating of some inert substance, usually sulphate of barium, commonly called baryta. Once again we meet the need for absolute purity.

All the raw papers used by the house of Gevaert are specially made for their requirements, and no departure from the invariable standard of perfect purity is allowed to pass the testing laboratories. Herein lies the explanation of the fifteen years' continuous growth of the firm. Herein lies the secret of the reputation now held by Gevaert products as being the papers *par excellence* for perfect pictures.

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"The time has come, the Walrus said, to talk of many things."

OF the photographic columns appearing in the lay press, that contributed by "J. M. B." to the "P.M.G." was always one of the few I could read without developing gravel-rash or homicidal tendencies. Without intending to be rude to "J. M. B.'s" successor, I cannot help wishing that the column was still in the original hands. At the same time I hope the new gentleman will continue to atone somewhat for his shortcomings by giving us a bountiful supply of unconscious humour, such as appears in large and plentiful chunks in one of his contributions now before me. As I feel unusually idle this evening I am sorely tempted to take the column in its entirety and send it in as the week's "Piffle," but I fear the writer would regard that as a compliment.

* * *

I will therefore content myself with selecting one or two gems from the embarrassment of riches he provides on the topic of sporting subjects. He begins by stating that now is the time "for photographers to attack sporting subjects." This looks at first sight like incitement to murder; but he goes on to say that as pocket cameras are now in vogue "there is no excuse for the sportsman." Apparently the sportsman is to carry the camera himself, and to use it as a means of attack on himself and fellows. Amongst the subjects he is to assault are lunching parties, into which "the picturesque can be introduced with pleasing effect." A party of sportsmen hastily swallowing cold food has never struck me as a subject for the introduction of the picturesque, and personally I should be inclined to back the effect produced by the introduction into the group of a charge of small shot. He laments the fact that amateurs do not secure the necessary pictorial effect because they "simply make a study of pictures with sharp detail." We gather from this that the more fuzzy-wuzzy the feeders and other sporting subjects are the better.

* * *

In case these inspiring words should induce photographers to rush rashly into the domain of sport with their cameras, the gentleman proceeds to add a word of caution. He points out that there is a certain amount of risk, "especially if the photographer elects to stand in front of the gunner," and that his aim should be "to introduce all the life and movement possible." He might well leave this latter task to the "gunner" before whom he stands. The unexpected reception by the photographer of the contents of right and left barrels into his rear elevation will certainly induce movement, if not life. Whether he will obtain a picturesque record of his own antics in the circumstances is another matter.

* * *

Not only is this sporting photography risky, but it is also difficult. As the writer truly observes, "stalking the humble rabbit when playing or feeding under a hedge is not easy." I should think not; and I would advise the photographer who really has his heart in the work to refrain altogether from both playing and feeding under a hedge, and to push on with the job.

* * *

When a field contains large numbers of green plover or peewits feeding, the photographer is advised to stand by one hedge while a friend creeps along the opposite one. When the friend shows his face and so frightens the birds, the camera man is to snap them with his little pocket camera as they rise. He is encouraged by the further information that the white tips of the peewits' wings will show up well, and that "the perspective of birds on the wing is particularly pleasing." It is a pity that some sample pictures of these sporting subjects are not shown, for although the column is illustrated I fail to see the appropriateness of the two pictures given, one of which is the King of Uganda and the other some pigmies from the Congo. These might well have passed for a buck rabbit and a flight of peewits respectively had it not been that the titles are unfortunately printed below.

* * *

There is a strong tendency at the moment to advocate a more liberal inclusion in the exhibition of the Royal Photographic Society of sporting subjects, and scientific and technical prints. Personally I do not object to this as long as it is not overdone. No one can legitimately decline to be delighted with a pocket camera view of a large field, so long as there are plenty of peewits showing white wing-tips and pleasing perspective. Nor can one fail to be instructed and amused by the rendering of a sporting photographer whom the "gunner" behind has mistaken for a green plover and presented with four ounces of the best chilled shot. No one appreciates more than I the fierce delights of the scientific section of the Royal. It is one of my main reasons for continuing to exist that I can once a year wander into the gallery and renew my acquaintance with my dear old friend Bulimus sanchristo valensis and his no less esteemed relative Pseudo-ashitina auripigmentum. Life would be a blank to me if I had no further opportunities of meditating on a view of the peristaltic waves in a stomach filled with bismuth in kumiss, or if I could not revel in the glories of a photo-micrograph of the auxiliary legs of a looping caterpillar. These things are as the very breath of my nostrils to me, and I would not be deprived of them for worlds.

* * *

But I don't want too much of this sort of thing. I like to look upon it as a luxury. I don't want Platycerium biforme for my daily food, or Trypanosomes as my daily companions.

* * *

I feel strongly that I want, and always shall want, the pictorial section to fall back upon for amusement. I love to see the couple of visitors who have strolled in from Bond Street, she with a hat like an inverted earthquake and he with a fore-and-aft knife-edge to his trousers; to watch them stop opposite the worst print in the room; to hear her "how awf'ly precious," and his "yes, bay Jove, quate naice, what?" I like to see them succeeded by the little man with long hair and trousers like old camera bellows, and, to watch him make weird mesmeric passes in front of the picture as with a dirty revolving thumb he demonstrates the fact that the whole thing is hopelessly and impossibly wrong, don't you see? I take an unholy joy in watching the man who stands with assumed unconsciousness near his own exhibit, and in seeing him squirm when I persuade a friend to look fixedly at the print for a long time and then to say quite loudly, "Rotten!" These dear delights I cannot possibly forego. Hence I shall eye somewhat askance any attempt to encourage "sporting subjects" at the expense of "The Last Load," or to oust "Portrait of a Lady" with a transverse section of a bluebottle's gizzard.

THE WALRUS.

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Aids to Sharp Focussing.

Difficulties in getting perfect sharpness with ground glass. Perfect register between screen and plate, and how to ensure it. Finely ground screens. Hoods v. focussing cloths. The use of a focussing glass.

WHATEVER may be the aims of the pictorial worker, the great majority of amateur photographers want to get their pictures as sharp as they possibly can, and many of those who appreciate a certain degree of diffusion in their prints are content to introduce that diffusion at a later stage than when the negative is being made, so that the degree of blurriness may be under control and variable. To get as sharp a picture as the lens will give it is most important that the back and front of the camera shall be strictly parallel, and that the plate shall be exactly in the focal plane—that is to say, precisely at that distance from the lens at which the actinic rays from the subject come to a focus.

All stand cameras and a great many hand cameras are provided with a ground glass, and the distance between the lens and the ground glass can be varied until the image on the ground surface appears sharp. Although for a great many purposes this is all that is necessary for focussing, there are cases in which something further is wanted, or the focussing screen itself may not be efficient.

No Advance since Daguerre.

Some of the very earliest cameras made were fitted with a ground glass screen, and it is rather curious that with all the other modifications and improvements that have been introduced into camera construction, the focussing screen to-day is much about the same as it was in the days of Fox Talbot and Daguerre. This is the more remarkable since it is by no means a perfect appliance for its object.

Anyone who has ever fastened a lens in the shutter of a perfectly dark room and focussed the image on a sheet of white card cannot fail to notice how much easier it is to focus on such a surface than on ground glass. The picture for one thing looks far more brilliant. Not only does the white card reflect a very large proportion of the light from the lens which falls on it, but all other light is perfectly excluded—far more perfectly than is generally done by muffling one's head in a focussing cloth. Then, again, the definition is not interfered with by the granularity of the surface upon which it is received, as is the case with the coarse grain of the ground glass, and some focussing screens are very coarse indeed.

But where the ground glass is at its weakest is when we come to examine the corners of the screen. The image there is often almost, if not quite, invisible, whereas if we could use an opaque white screen and look at it from within we should see the corners of the picture almost as distinctly as the centre.

The Ground Glass at Best is Imperfect.

As the focussing screen, therefore, is at the best imperfect, if we want to focus readily and accurately it is necessary to have the conditions favourable.

In the first place, it should be of as finely ground glass as possible. A specially fine ground glass is now made for this particular purpose, and if the granularity of the screen in any way interferes with focussing, a piece of this glass, which is not expensive, should be substituted.

Then, again, the ground glass must fit in its frame without any rattle or looseness, and if it does not do so it must be packed up with paper or thin card gummed and laid in the rebate or under the plates which hold the glass in the frame until it is no longer loose. Whether the packing goes on one side of the

MEMORANDA *for the week.*

Free offers which our readers would do well to note are made from time to time in this space.

glass or the other will depend upon circumstances, as pointed out below.

Not only must the glass be fine and firmly fixed, but

It Must be in Register.

That is to say, when the plate is in position for exposure it must be at precisely the same distance from the lens as the ground glass was left after focussing. In camera-making register is ensured by causing both the front of the dark slides and the front of the frame carrying the ground glass to bed up against the same part of the camera back, and by seeing that the front surface of the plate is just as far from the front of the dark slide as the ground surface of the glass is from the front of its frame. When a camera is used for the first time this should be checked. It is easily done.

To Test the Accuracy of Slides and Screens.

A piece of smooth square wood a little longer than the plate is taken, and a wood screw is put through somewhere about the middle of it with its point projecting slightly. The frame holding the ground glass is laid on the table, and the piece of wood is placed across it and the screw turned until its point just touches the ground surface of the glass. By putting the wood across the frame in different positions and noting that, wherever it may be, the screw just touches the glass we can make sure at least that the glass is squarely in the frame. The dark slides may then be tested one by one, a piece of glass or a spoiled negative being put in, the shutter drawn out, and the wood laid across as before. The screw should just touch the plate wherever applied. In making the test it is well to make sure that the springs in the dark slides are strong enough to push the plate properly up against the rebate of the slide in every case.

If the camera passes this test, well and good; if not, if the slides all agree but differ from the ground glass, this should be packed up in its frame until it does agree with the slides. As modern cameras are machine made, the slides are usually strictly accurate; but it sometimes happens from one cause or another that the ground glass does not register with them.

Oiling the Ground Glass.

A good deal of the granularity of a focussing screen can be removed by the simple process of rubbing the ground side with a trace of vaseline, and then wiping off as much as possible. This also makes the screen more transparent, but it does not help appreciably to make the image at the corners of the screen more plainly visible.

A good many cameras are now made with hoods fitted to the focussing screen. These are a substitute for the focussing cloth when the focussing is not very fine; but where it has to be done accurately and every part of the picture must be seen the focussing cloth has great advantages.

For very fine focussing a focussing glass or magnifier is useful. To employ such a glass to advantage the focussing screen has to be prepared specially. This is easily done.

How to Use a Focussing Glass.

One of the bottom corners is the most convenient place, and here a little cross is made on the ground glass with a finely pointed pencil. Over the cross a circle of thin glass (a microscopic slide cover glass) is cemented with Canada balsam. The result of this is that the grain of the glass at that spot entirely vanishes. The focussing glass in its mount is placed flat against the ground glass over the spot in question, and the pencil cross is sharply focussed by sliding or screwing the focussing glass in its mount. When it is seen to be sharp the glass must not be altered further, but used to view the image on the screen.

The image will be seen clearly even where the cemented cover glass has made the ground glass quite transparent—in fact, with a focussing magnifier adjusted in this way a plain glass might be substituted for the ground glass except that it would not allow us to view the image as a whole. Wherever the focussing has to be done with the utmost accuracy, as in photo-micrography for example, a magnifier of this kind should be used. W. D.



The Royal Photographic Society.

It is said that there is a good deal of wire-pulling going on in the council of the Royal Photographic Society with the idea of getting Mr. Chapman Jones elected president in succession to Mr. Mummery. In the distant past Mr. Jones did a great deal of hard work for the Society, and although of late years he has been somewhat out of touch with matters photographic, it would be a great pity if any chances he might fairly have of election to the presidency were spoiled by an impression that is certainly gaining ground that he is to be thrust upon the Society by a council intrigue. The matter is not of much importance, as the Society is steadily tending towards making itself more of a club for its members, and less the official head of photography in this country; in fact, to judge by the sayings and doings of those in authority, its nominal object, "the advancement of photography," seems to be lost sight of, and its real purpose has become the providing of enlarging rooms and dark rooms for a few Metropolitan photographers.

The Camera and the Flat Earth Controversy.

The claims of Peary and Cook to have reached the pole have brought into prominence once more the assertion of Lady Blount that there are no poles to reach. Just as it is said in medicine no theory is so absurd that at least one qualified medical man cannot be found to support it, so in the wider sphere of astronomy the wildest speculations have their adherents. That it should be in any way possible to get photographic evidence in support of the hypothesis of a flat earth will surprise many of our readers; but precisely what that evidence is they will be glad to know, and that is what Mr. Clifton tells them in the article which we print this week on page 316. It comes to this,

that it was found possible to photograph an object six miles away over a water surface which, if it were curved as the earth from its spheroidal shape is curved, would completely hide it. Mr. Clifton suggests that the water, from some unexplained cause, was not curved, but straight. Another explanation might be found in some configuration of the surface affecting the density of the atmosphere near the water, causing the rays to be curved. Even if these suggestions came to nothing, an isolated fact of this kind could have little effect against the overwhelming body of evidence the other way. It would be an interesting abnormality, which it would be up against physicists to explain; but to think that it could be anything more is to ignore a mass of facts in celestial mechanics of simply inconceivable number and weight. All this does not lessen, but rather increases, the interest of Mr. Clifton's article and pictures.

A Camera Club.

At the smoking concert of the "Salon," Mr. Craigie announced that the idea of a Camera Club for London was by no means dead, but in active existence, and it was said that premises in the Adelphi were in contemplation as a home for the new institution. While there is no doubt that there is an opening for a club of the kind, it by no means follows that this attempt will be less abortive than its predecessors. The fact is that some at least of those who are trying to form a new club have not sought to discover the reason of the failure of the old one. They say "London ought to be able to support a club for photographers, such as can be run in other large cities." Though the cases are not parallel, it certainly ought. Yet the old Camera Club failed, and failed miserably. It failed because it became a mere clique, and was run by a few in their own interests rather than in those of the club as a whole. We have no personal complaint against Mr. Craigie; but if he does not realise this, does not realise that a club to be a success must command general support, and not merely the support of a party, above all if he does not realise that the men who ran the old club to its collapse are not the men to meddle with a new one, he will only be disappointed once more. The mere list of names of those who were prominent in trying to start the club a few months ago was quite sufficient to deter many from supporting it. If he will get a committee of men enjoying general confidence, rigidly excluding those who have axes to grind, journalistic or otherwise, he may hope to succeed; but to attempt time after time in the old way is only to court failure.

JOVIAL JENKINS.

My temper is bad, I oft wish I had a nature like
Jenkins possesses;
He doesn't despair, or tear out his hair, because of his
lack of successes;
When things turn out wrong, he bursts into song,
instead of lamenting and moaning;
He says, with a smile, "It isn't worth while to go
about grunting and groaning."

When prints are squeegeed and cannot be freed, he
doesn't become too loquacious,
But makes the remark, "They'd printed too dark; so
p'raps it's as well they're tenacious";
If bromide should stain, he prints them again; yet
never thinks aught of the trouble;
He laughs till he cries, if a blister should rise, the size
of an overgrown bubble.

With carbon or gum, he never looks glum, howe'er
ineffective the issue;
He'll never lament at the time he has spent on a piece
of insoluble tissue;
If he drops a dark slide, and the plates break inside,
he doesn't give way to depression;
He says, "What a joke; I'm glad that they broke; I
don't think that batch was a fresh 'un."

When working in oil, his clothes he will soil, and smear
himself over with pigment;
Yet doesn't deplore, the result, when no more than a
sort of a shadowy figment.
I'm just the reverse, and I seem to get worse; the
least thing annoys and depresses;
I'd give untold gold, if only were sold, such natures
as Jenkins possesses.

Some of the Contents of our Next Issue.

QUITE a number of important articles will figure in the next issue of "Photography and Focus." These will include a further contribution on the control of development with bromide and gaslight papers, by Mr. John Sterry; a short account by Mr. A. E. Bawtree, how to make small quantities of carbon tissue at home, for three colour work and similar purposes. "Top Light in Home Portraiture" is the title of an illustrated article by "Richard Penlake"; a number of workroom dodges are illustrated and described by Mr. Percy D. Booth; and a change from the ordinary run of amateur photographic work, which will appeal to many of our readers, will be found under the head of

Photographic Reconstruction,

an illustrated article by Mr. L. S. R. Cary. We shall also publish another paper of the series on lenses, dealing with the Beck "Isostigmar," a further instalment of "Odds and Ends" by readers, and a number of illustrations printed in colours on art paper, reproducing pictures from the R.P.S. exhibition.

QUERIES AND REPLIES

REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only *one* will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be deal with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed

SEAGULL (Lizard).—There is no difference between them.

ESTIMATE (South Shields).—Nothing of the kind is in print, so far as we know.

F.C.S. (Derby).—The name does not appear in any of the lists in our possession.

B.P. (Bexhill).—The Thornton-Pickard Co. will supply what you want, and we can recommend their make

PRECEPTOR (Liverpool).—The inverted burner is better for the optical lantern than the ordinary kind of incandescent gas burner.

J. PERCIVAL (Osmaston).—They will not be reprinted, and the numbers are long since out of print, so a list of them would be of no service.

PRINT (Sheffield).—The failure appears to be due to some chemical impurity left in the print originally. We fear there is nothing that can be done with it now.

WORSFOLD (Aylesbury).—The statement is correct as far as it goes, but it wants a great deal of qualification; so much so that, for the present at least, you would do well to ignore it, and go on as you have begun.

CZNKLNNHOFF (Nightingale Lane).—Encaustic paste is a mixture of wax and a solvent which, rubbed over the face of a print, gives it greater richness than before. It can be obtained from most of the big dealers.

A.F.B. (Shoreham).—The article to which you refer is not known to us. The best working instructions are to be found in "The Half Tone Process," by Julius Verfasser, price 5s. nett, or post free 5s. 6d. from our publishers.

E.R. (Falfield).—If you mean without affecting the gloss, it is not to be done. If you do not mind this you can get the print off if it is mounted in the usual way by letting it soak two or three hours in cold water. There is always a risk.

MOUNTANT (Ferns).—It is not a fault of the mounts, but is inevitable when a wet mount is stuck on a dry card. It is lessened by using as dry a mountant as possible. Some people dry the prints while bent backwards to counteract the tendency.

B.C.E. (Southport). — The reference to permanency is not to the finished print but to the solution containing the developing substance. There is not the slightest reason to suppose that prints developed with amidol are in any way less permanent than those developed with anything else.

C.S (Wakefield).—The distance beyond which everything is in focus is found by squaring the focus of the lens, in inches, multiplying by 100 and dividing by the F number. This gives the distance on which to focus, and then everything from half that distance upwards will be in focus.

MALHAM (Forest Hill).—Most makers of enlarging apparatus make what you require, but it is not general to use such an arrangement for showing lantern slides, and you would do better to get an enlarger and fit it to take the lens you have, which would not suffer in any way by being so used.

R. ELMOFF (Bristol).—We are as puzzled as you are. No. 1 appears to have been exposed to some light while the camera was moved about, hence the wavy line. No. 2 we do not understand at all. The films have been sent back; and we should be amused to hear what you will be able to say about them.

MRS. TIMMIS (Liverpool).—The explanation is a simple one. The table was moved during exposure. This is quite clear from the fact that nothing but the table and what it carried has been duplicated. The movement only shows clearly in the brightest parts, but when looked signs of it can be seen elsewhere.

AUTOCHROME (Windsor).—There are no published formulæ for such a process, and if you wish to make the paper you will have to undertake a good deal of experimenting. The patent specifications can be consulted at the Patent Office Library; but, apart from the question of your right to work upon those lines, you would find that months, perhaps years, would be taken up in settling questions of detail.

C.S.E. (Wigston).—This was fully answered in our last issue.

STIGMATISM (Blackpool).—Any optician will provide you with what you want.

REGULAR READER (Pershore).—The exposures required by f/16 and f/18 are in the proportion of 4 and 5.

A. CLARK (Weaste).—The apparatus is perfectly satisfactory. It was reviewed in our issue for November 17th last year.

PRINTER (Edgehill).—The bath is far too strong, and is toning too rapidly to give even results. Dilute it with at least its own bulk of water.

ENQUIRER (Lee).—They are "reliable," but involve exposures of twenty times as long or more; but this does not put them out of court. They are quite unsuitable for slides.

G.B. (Edinburgh).—There is not much difference between one make and another in this respect, as far as we know. Both Ilford and Wratten and Wainwright are extensively used.

S. E. TRELOAR (N. Kensington).—Neither of the toning baths mentioned gives results that can be relied upon for permanence. A tone obtained by plain development is probably permanent.

TYRO (Warth).—An ounce of sulphite and a quarter of an ounce of carbonate would make a good working developer; but it would be much better to use the formula precisely as given by the maker of the paper that you use.

CAMERA (King's Lynn).—We do not see that you have anything to gain by the alteration, which would only give you more trouble in two cases out of three. This is one of those things which are best left alone.

F.L.H. (Muswell Hill).—We can give you no formula for a p.o.p. emulsion, nor can we tell you where it can be bought made up. The manufacture or even the coating of p.o.p. is not a process to be carried out except on a commercial scale.

STRUGGLER (Dukinfield).—It would be best to join the society. The secretary is Mr. E. Till, of 30, Bass Street, Dukinfield. You are on the right tack, but a little practical help such as you would get there should save you a lot of time and material.

C.G. (Anerley).—The following solution is used for fireproofing fabrics, which are merely dipped into it and then hung up to dry:

Ammonium phosphate	.. 1 ounce
Ammonium chloride	.. .. 2 ounces
Water	.. .. 15 ounces

A.M. (Mill Hill Park).—Make a five per cent. solution of ordinary gelatine, and to each ounce of it while hot add one grain of chrome alum dissolved in half an ounce of hot water. Brush this over the paper while still hot, or, if you prefer it, immerse the paper in it for two or three minutes and then pin it up to dry.

ANASTIGMAT (Guildford).—The name is simply some one invented by a seller, and does not convey any suggestion of quality or design. It would certainly be best to get it on approval, and try it before deciding to purchase. There is nothing else photographic in which the maker's name stands for so much as in the case of a lens.

J. C. ARCHER (Sheffield).—Slow backed plates are very suitable for photographing machinery; but it is better always to use the plates to which you are accustomed. A sheet is a good background for the purpose, and should be used even if the machine is to be blocked out on the negative afterwards, as it makes the true boundaries clear and distinct.

HIGHLIGHT (Shepherd's Bush).—The easiest plan would be to rub down the parts that are too dense with a little ball of cotton wool. Baskett's reducer (see reply to D.O.) may be used, but methylated spirit would no doubt do all that you want. The wool must be just moistened with the spirit and squeezed nearly dry, and then rubbed on the negative, shifting the wool as it gets blackened by the deposit from the plate. No attempt should be made to take off a great deal at once, but patience should be used, and the negative lightened a little at a time.

AMATEUR (Bedford).—No permit is required.

PORTER (Stamford).—The two cases are strictly parallel and your conclusion correct.

OXO (Blackheath).—The marks are due to light getting into the camera. Presumably this is of the folding type and the shutter is defective.

VELOX (Holloway).—Amidol is to be preferred if you cannot use metol. But it should be freshly dissolved. If you buy the anhydrous sulphite you will find it can be dissolved almost instantly.

H. R. LEY (Boscombe).—Yes, it is very suitable. One part to fifty of water is the greatest degree of dilution we recommend. One or two experiments will show you how long you should let it act.

LENS (Llanelly).—A quarter-plate lens would do if you do not propose to use more of the negative than could be got on a quarter-plate, masking the rest. As the studio is so short it would probably be the better. Please do not repeat enquiries in future.

FERNS (St. Leonards).—Evidently the card was not permanent. The omission of the bicarbonate is quite sufficient to explain what has taken place. It is added to prevent any chance of the hypo acting on an acid print, which is injurious to its chance of permanence.

FOCUS (Colne).—The prices you name for ether and alcohol are high. If the work is only to be done as an experiment, the quantities given should be divided by four or more. By "costly" is meant that the plates work out at far less than lantern plates.

G. R. MARSH (Twyford).—There is nothing for it but to make prints specially dark for use with that formula, which is not one we can recommend. There are many doubtful formulæ, which are reprinted from book to book, without ever being practically tried, and this, we believe, is one of them.

E.F.R. (Buxton).—Unless it visibly marks the negative it will do no harm. Sometimes it makes it look blotchy and dirty from precipitation of foreign matter present in the spirit, in the film; but this does not usually affect its printing quality. It should be done after fixing and washing.

EXCELSIOR (Brecon).—We could not possibly tell you the exposure to give. No one can, unless present at the time. You should get an exposure meter, the Watkins "Bee Meter" will do very well, read the instructions carefully, and learn to use it. You will soon be able, with its help, to expose every plate correctly.

D.O. (Derby).—Baskett's reducer is made by mixing the following ingredients:

Terebene	.. .. .. 2 ounces
Salad oil	.. .. 2 ounces
Globe polish	.. .. 1-2d. tin

The mixture is well stirred up and strained through two thicknesses of muslin.

F. HORLOCK (Beckenham).—The solution generally used for such a purpose is made by mixing equal parts of saturated solutions of iodine in alcohol and potassium cyanide in water, and diluting until the action is conveniently slowed down. It is highly poisonous, and unless circumstances make such a course quite impossible, it would be better to block out on the negative what is not wanted.

A. S. MEDCRAFT (Ilford).—We are glad to learn that our intervention was successful; but we do not understand how "amateurs are handicapped" by photographs taken before the event, unless opportunities of taking such photographs were limited to professionals. Such work at no time is likely to be of much profit to amateurs, as it is the sort of thing which regular press photographers undertake.

S.C.P. (Newport Pagnell).—All turns on what you have already sold. If you have sold exclusive rights you cannot sell rights to reproduce the prints to some other firm. If you have allowed one firm to reproduce, but not bound yourself not to allow any other to reproduce, you can, of course, do so. It is not a question of copyright law, but of what you yourself have or have not done.



OUR LANTERN SLIDE COMPETITION.

Although dated Tuesday, the 19th inst., this issue of "Photography and Focus" reaches some of our readers on Monday, and we take this last opportunity of reminding them that entries for the lantern slide competition close on Monday, October 18th, and that no exception can be made in favour of late entries. The rules were given on page 307 last week.

A NATURE PHOTOGRAPHIC SOCIETY Fellowship is now being formed; subscription, 2s. per annum. Those interested should write to the organising secretary, Carl Edwards, at Woodlesford, Leeds.

THE ROTHERHAM PHOTOGRAPHIC Society joined in the effort made by the Mayor of Rotherham to reduce the debt on the hospital, and handed over £17 towards that object.

THE RAJAR CAMERA offered monthly for the best print on Rajar paper has been won by J. W. Down, 21, High Street, Harlesden, N.W., on paper purchased from Sanders and Crowhurst, of 71, Shaftesbury Avenue, London, W.

THE LANCASTER PHOTOGRAPHIC SOCIETY holds its exhibition from November 29th to December 2nd, entries closing November 20th. Particulars and entry forms can be obtained from the honorary secretary, Mr. Thomas Holt, 4, Parliament Street, Lancaster.

FOR STILL LIFE SUBJECTS a flash powder, ignited with touch paper, and used without a lamp of any kind, may be quite a success. Mr. Hart at the Hull Camera Club pointed this out, and demonstrating the Agfa flash powder, warned the members against using it in any kind of blow-through lamp.

THE REGENT STREET POLYTECHNIC opened its session on Thursday last, when Mr. Howard Farmer gave an address entitled "Among the Flying Men," with illustrations of flying machines and incidents of actual flight. The day and evening classes at this well-known centre afford excellent opportunities for assistants who want to improve their work. The tuition covers photography, finishing in black and white, process and colour work.

SECRETARY FOR 21 YEARS. The Tunbridge Wells Amateur Photographic Association is to lose its honorary secretary and treasurer, Mr. Joseph Chamberlain, one of the founders of the society, and its honorary secretary for one and twenty years. Mr. Chamberlain, we are sorry to learn, is compelled to retire owing to a breakdown of his health. His successor is our contributor, Mr. H. Wild, of Berrycroft, Warwick Park, Tunbridge Wells.

THE DUKINFIELD SOCIETY has carried out various improvements in its dark room, the keys of which are now kept by Mr. T. NEWLS, of 121, King Street.

BINOCULARS AND A GUN were presented by the Margate Photographic and Scientific Society to Mr. H. R. Gibbs, who is leaving for New Zealand, in recognition of his services to the club.

LANTERN SLIDES OF NORTH and Mid-Wales, together with notes for a lantern lecture, may be obtained on loan from the General Manager, Cambrian Railways, Oswestry. Early application should be made.

THE ROTHERHAM PHOTOGRAPHIC SOCIETY has elected as president C. H. Moss; vice-presidents, W. Firth, J. Leadbeater, and J. W. Stamp; treasurer, F. Oldham; honorary secretary, H. C. Hemmingway.

FREE DEMONSTRATIONS of various photographic processes are given every Thursday evening at Bishop's Drug Co., 460, Holloway Road, London, N., from 7.30 to 9, to which photographers are invited. The firm publishes gratis also a little photographic periodical known as "The Photographic Messenger."

THE BATH PHOTOGRAPHIC Society at its annual meeting elected the following officers: President, Rev. James Dunn; vice-presidents, Mowbray A. Green, Dr. Hardyman, Dr. Bayliss, and W. Harbutt; general secretary, W. J. Hallett; financial secretary, F. H. Gray; portfolio secretary, G. H. Chester; superintendent of dark room, W. H. Weeks.

THE NORWICH and District Photographic Society at its annual meeting elected the following officers: President, A. E. Coe; vice-president and chairman, E. Peake; vice-chairman, B. Bullen; honorary secretary, J. T. Tanner; assistant secretary, R. J. Delf; folio secretary, A. Hardy; lanternist, E. Coe; committee, Miss Austin, J. H. Fox, H. F. Butcher, F. J. Jordan, W. R. Vickery, L. F. Corsbie, and the *ex-officio* members.

THE BOROUGH POLYTECHNIC Photographic Society had an outing in London on the 26th ult. The route taken commenced at the Horse Guards, thence to Charing Cross, down the Strand, the York Steps, the Dark Arches, the Adelphi and Garrick's House, Fleet Street (where the old trade signs were noted), Alsatia, Johnson's House, Lincoln's Inn, Staple Inn, Giltspur Street, Smithfield, Clothfair, and Bartholomew Close.

THE DERBY PHOTOGRAPHIC SOCIETY, at its annual meeting, elected the following officers: President, R. Legge, M.D.; vice-presidents, C. J. Cade, E. Collier Greene, and C. Barrow Keene; treasurer, T. H. Thorpe; reporter, D. Deeley; lanternists, S. Finney, C. E. Etches, and W. Wilkinson; auditors, E. E. Swain and Dr. Moon; council, J. B. Copeland, G. Trevelyan Lee, W. G. Constable, S. Finnoy, W. H. Pegg, T. W. F. Rowney, F. W. Shurlock, E. Vaudrey, M.D., and W. Wilkinson; honorary secretary, Thomas A. Scotton, Briar Lee, Alvaston, Derby.

KOH-I-NOOR HOUSE is the name of a new building to be put up in Kingsway for Messrs. L. and C. Hardtmuth, the makers of the well-known retouching and other pencils of that name.

THE AFFILIATION AWARDS announced on page 293, the secretary asks us to announce, were made in connection with the Affiliation outing, and not with the annual competition, which latter does not close until November 30th.

COMPOSING WITH A KNIFE. At the outing of the Woolwich Photographic Society to Bostal Woods a subject selected was a group of fungi on an old tree trunk, and a member showed how the composition could be improved by a judicious removal of some of the surrounding undergrowth with a knife.

"LONDON," by Alvin Langdon Coburn, is the title of a book to be published immediately by Messrs. Duckworth and Co., of 3, Henrietta Street, Covent Garden, London, W.C., at £1 5s. nett. It will consist of twenty photogravure plates, and will contain an introduction by Hillaire Belloc, M.P.

THE CHERRY KEARTON CO., LTD. According to the "Daily Mirror," Mr. Cherry Kearton, like the Duke of Plaza Yoro, is to be turned into a limited company, with a nominal capital of £4,500. The object of the company, which does not go to the public for capital, is to acquire the photographs of animal life and show them at living picture entertainments.

A SLIDE COMPETITION is being held for the best slides made upon Edwards's Kristal lantern plates. The prizes are cash, and of the value of £3 3s., £2 2s., £1 1s., with twelve at 10s. 6d. each, and fifteen consolation prizes of 5s. each. An entry coupon is issued with the plates, and the entries close on December 31st, 1909. The competition is being organised by the Leto Photo Materials Co., Ltd., Roman Wall House, 1, Crutched Friars, London, E.C., the proprietors of Edwards's Plates, and no doubt our many slide-making readers will note the opportunity which the competition affords them.

A FOCUSSING SCALE CHART has just been published by Messrs. W. H. Phillips and Son, of 98, Truro Road, Wood Green, London, N. The chart, which is printed on card from a copper plate and enclosed in a neat cloth case, shows at a glance the distance which the camera has to be racked out from the infinity position in order to focus nearer objects. It can also be used to ascertain the equivalent focus of any lens, from 3 to 10 inches focus, by ascertaining the extent to which the camera has to be racked out from the infinity to the 5ft. mark. It is a handy little contrivance, which will appeal to a good many photographers.

BERNARD SHAW AT THE SALON. Just as we go to press we receive an intimation that Mr. G. Bernard Shaw will "Improvise on the subject of Photography" at the Photographic Salon (Gallery of the Royal Society of Painters in Water Colours), at 5a, Pall Mall East, London, S.W., at 8 p.m., on Monday, the 18th inst.

A GOLD MEDAL for the encouragement of junior members of the Hastings and St. Leonard's Photographic Society has been offered by an anonymous donor.

THE HEATON AND DISTRICT Camera Club has headquarters at Byker Bridge Assembly Rooms. Photographers in the Newcastle district would do well to get into communication with the honorary secretary, Mr. G. C. Urwin, of 24, Tenth Avenue, Heaton, Newcastle-on-Tyne, who is making an effort to increase the scope and membership of the club.

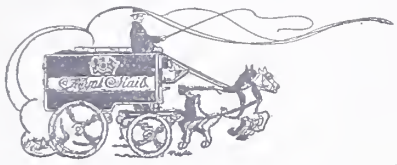
SURELY A RECORD. At the annual dinner of the Cambridge Photographic Club it was stated that there was not a single outstanding subscription.

THE WILLESDEN POLYTECHNIC Photographic Society has just issued its syllabus for the winter. The society, which is eminently energetic and helpful, meets three times a week at the Polytechnic, and has a subscription of 5s., or, to students, of 3s. 6d. Photographers in the district would do well to apply to the honorary secretary, Mr. William Axten, Ravenscourt, Ealing Road, Wembley.

THE NOTTINGHAM CAMERA CLUB issues an excellent little monthly organ, "The N.C.C. Journal."

IMPROVED ACCOMMODATION has now been secured by the Lancaster Photographic Society, whose rooms were reopened with a smoking concert at which the president, Mr. T. Baines, presided.

BALHAM CAMERA CLUB. Mr. F. Beard, of 3, Chetwode Road, Trinity Road, Upper Tooting, London, S.W., is now the honorary secretary, and will be pleased to forward particulars of the society on application.



Correspondence.

The Editor is not responsible for the opinions of his Correspondents.

ENLARGING ON "ENSYNA."

Sir,—Being interested in "Ensyna" paper, and having experimented with the same in various ways, it may be of interest to a good many to know what excellent enlargements can be made on this paper.

To my idea it has many advantages over bromide enlarging for the beginner. One of them is that the paper is not so sensitive as bromide, therefore is less liable to fog during the handling, and before the actual exposure. In fact, the writer has enlarged on "Ensyna" paper in a room where a fire has been burning, and found that this had no effect on the sensitiveness of the paper.

To the beginner the question of exposure is a vexed one. Enlarging on "Ensyna" offers a great advantage, as it is almost impossible to err provided care be taken not to under-expose. The much admired sepia tone which can only be got on bromide by toning (and here again the beginner's troubles commence) is only a question of exposure in dealing with "Ensyna." For a sepia tone in the vigorous grade exposure should be made until the image is faintly visible, and for colder tones the exposure can easily be timed accordingly.

For portrait enlargements nothing could be better than the carbon surface, the little trouble and the simplicity of the process are its own recommendations; the only drawback is that a pure black and white tone cannot be got.

"Ensyna" presents a number of interesting features both to the beginner and the expert, and in the near future we shall no doubt be hearing more about what can be done with these phosphate papers, which interest me greatly.

Yours, etc., FRANK MASTERS.

A CURIOUS EXPERIENCE.

Sir,—I was recently shown some lantern slides which had been put away for many years, and had become quite cloudy. The cloudiness was due to the cover glass becoming etched, as though by the action of nascent hydrogen fluoride (hydrofluoric acid). In fact, the microscopic appearance ($\frac{1}{4}$in. objective) of a glass etched by nascent hydrogen fluoride could hardly be distinguished from that of the cloudy lantern slide cover.

It cannot be due to decomposition of the glass from atmospheric or any other influence from without, as the cloudiness appears only on that side of the glass in contact with the slide itself. I shall be glad to know the cause of this.

Yours, etc. JNO. WILLIAMS.

Georgetown, British Guiana.

[We are quite at a loss to explain how the curious effect originated, so publish our correspondent's letter in case some other reader may be able to provide an explanation, or may have had some similar experience.—ED.]

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

SUBSCRIPTION.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

	GREAT BRITAIN.		ABROAD.	
	s.	d.	s.	d.
Twelve Months	6	6	10	10
Six Months	3	3	5	5
Three Months ..	1	8	2	9
Single Copy		1½		2½

REMITTANCES.—Postal Orders, Cheques etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

EDITORIAL NOTICES.

ADDRESS.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.



OUR "Odds and Ends" page is reserved for brief notes from readers, giving hints or dodges which they have found useful in their practical work. We are always glad to receive these, and to be the means of communicating them to their fellow-photographers.

Repacking Exposed Plates.

It is not easy to pack plates in their boxes after exposure in exactly the same way as the makers do when they send them out, as any attempt to adjust the little separating pieces on their edges is very likely to lead to fingering of the film, if done in the dark, or to undue exposure to the red light, if that be used. I have found the following plan very satisfactory. A few sheets of pure Swedish filter paper are procured from a firm of operative chemists. These are cut into strips as long as the sheets will allow, and as wide as the plates. One end of one of these strips is placed between the films of two of the plates. A third plate is placed back to back with one of the others, and the paper brought over it and a fourth put down upon it. A fifth is put on the back of the fourth, and so on, the paper being folded backwards and forwards between each pair of plates. When a dozen are so formed into a firm mass, they are wrapped up in some of the original wrapping papers and put back into the box. The filter paper is perfectly pure, and can be relied upon not to damage the film in any way. When purchased, it should be cut up into strips, and these either made into a roll and wrapped up, or folded smoothly into a plate box to be kept until wanted, as it is important that it should be kept perfectly clean and free from dust or grit.—H. HIRST.

Counting Seconds.

There are various methods of counting seconds with fair accuracy, but perhaps the best is one adopted by seamen for timing the occultations of a lighthouse; in this case accuracy is necessary if the lamp is to be properly identified. The plan is to commence counting deliberately "twenty-one," "twenty-two," etc., the time occupied by the three syllables being just one second. The knack is worth acquiring, but most people err considerably in timing seconds. As an example of the variations between one person's estimate and another's I might instance a recent case in which three people simultaneously timed an exposure of, reputedly, twelve seconds, one making it twelve, one fourteen, and one ten.—S.J.T.

Printing a Cracked Negative.

If the crack is not to show in the print it is necessary to keep the negative turning round and round all the time it is being printed. A roasting jack and a gramophone table have both been suggested for the purpose, but not being the possessor of either I had to make some other arrangements. Accordingly, a board large enough to accommodate the printing frame had a piece of string attached to each corner by a nail, the four strings being tied together, so that the board would hang horizontally from them. To the knot a long piece of string was tied, and this was attached to one of the top windows of the house, so that the string hung down uninterruptedly to the board which was only two or three feet above the ground. In these circumstances it will be found that the board, and the printing frame on it, will keep turning round and round without attention, at any rate for several hours.—W. ESCRITT.

Cutting Circles.

Watch glasses of the "crystal" type are more effective for this purpose than the cycle lamp glasses mentioned recently on the "Odds and Ends" page, as they are cheaper, and can be had in a great variety of sizes. Any watchmaker will supply them on mention of the purpose for which they are required, at a penny or three half-pence apiece.—W. G. PUTTICK.

Printing Titles on Negatives.

I have found the following very simple method perfectly satisfactory. The title is first written or printed on a piece of thin parchment paper, underneath which is laid a piece of carbon paper. On turning the parchment paper over the carbon paper will have marked it with the title reversed. The carbon paper is then laid on the negative in the position selected, the parchment paper put on the top, with the reversed title upwards, and this is then gone over carefully with the pencil. The carbon paper will then set off the reversed inscription on the negative, which, when printed, will show the title the right way round.—J. GREGORY.

A Plate Washer.

A simple and effective plate washer which I have made may embody an old idea, as it is a very simple one. It washes the negatives under the bath tap while they lie on a board. To do this satisfactorily a strip of wood long enough to reach from the tap to the drain hole was taken, $\frac{5}{8}$in. thick, and $\frac{1}{2}$in. wider than the plates themselves. It was planed all over, and two strips the length of the board 1in. wide and $\frac{1}{2}$in. thick were nailed to the sides with brads. These form walls to keep the water from flowing over. Four bars of wood $\frac{1}{2}$in. or $\frac{3}{4}$in. wide were next nailed across the underneath side of the board. These are necessary, as otherwise the wood will warp and buckle with the wet. Some old plates were laid on the board to see how many it would accommodate, allowing $\frac{1}{2}$in. between each one, and two tintacks were driven in for the bottom of each plate to rest on. Then, where the top of each plate came a fine brad was driven through each side, allowing the point just to project about $\frac{1}{16}$th of an inch on to the edge of the plate and so to hold it tight down to the board. This I found to be absolutely necessary, otherwise the water will run underneath the plates. The plates are thus first slid under the side nails, which, of course, must not hold them too tight or they will crack, and then slid down under the heads of the tintacks. The whole had three coats of paint. A screw-eye was fixed at the top edge, and the washer looped with a piece of string on to the tap of the bath. The water is turned on, and if the plates lie flat, as they should do, it will run pretty evenly over all. I use this very satisfactorily for quarter-plates, but for much bigger ones the water would probably not cover all the surface unless some means of distribution were provided at the top.—F. WATSON.

Photography and the Flat Earth.

Reproductions of the actual photographs taken on the Bedford Level, with full technical details.

By EDGAR CLIFTON, F.R.P.S., who carried out the tests for Lady Blount.

DURING the past few weeks some interest has been aroused in the "flat earth" controversy, articles and letters appearing, in some of which the experiments carried out by the writer at the wish of Lady Blount have been mentioned. Little or no technical details have been given, so that the following account of what was done will come as news to many.

Two miles from Downham Market, in Norfolk, there is a little village called Salter's Lode, at which the bridge and lock-gates shown in the first illustration are situated. At Welney, in Cambridgeshire, there is a somewhat similar bridge, and between these there is

A Perfectly Straight Canal,

exactly six miles in length, without any obstruction to clear vision from end to end.

This out-of-the-way spot has been for about forty years the chosen battle-ground of the "planists" and "globularists," it having been asserted by the late R. A. Proctor, the astronomer, that if this stretch of water could be proved to be level there manifestly would be "something wrong in the accepted theory."

With a view to obtaining photographic evidence, the writer was engaged by Lady Blount to visit Welney and take some telephotographic views of a sheet about fifteen feet square stretched across the arch at Salter's Lode, the lower edge of the calico just touching the water. At Welney a small timber platform jutting out over the water had been erected, and upon this the camera was placed, the centre of the lens being

Less than Two Feet

above the water level. The lens used was a Dallmeyer 1A Patent Portrait Lens with a focal length of 10in., fitted with a 1.6in. negative attachment. This with a camera extension of about 3 feet gave an equivalent focal length of between 16 and 17 feet.

Arriving at Welney, it was found that the fixing of the sheet was not complete, and the nailing down of the *bottom edge* was watched through a telescope by the writer, who was lying at full length on the boards with the glass not more than eighteen inches above water level. Several plates were exposed, but owing to the atmospheric conditions none of the images were sharp, this being due to a constant movement in the aqueous vapour immediately over the surface of the water. This, although it did not seriously impair the visual observations, was, of course, highly detrimental to the production of a good negative. Nevertheless, the sheet was visible upon the negatives, although according to the globularists its top edge should have been

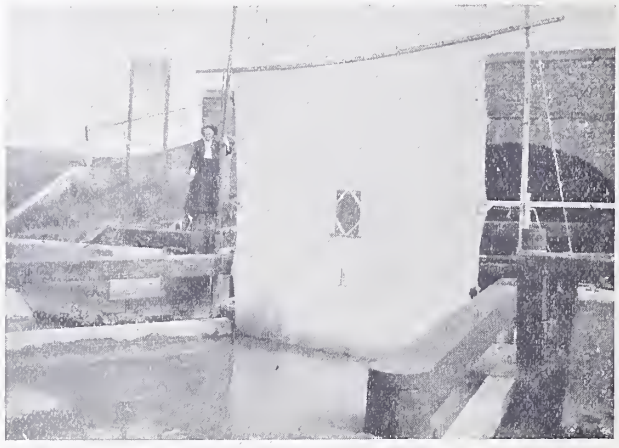


Fig. 1.—The sheet used by Lady Blount in her experiments.



Fig. 2.—The bridge at Salter's Lode



Fig. 3.—Telephotograph of the arch taken at a distance of six miles.

Nine Feet Below the Horizon.

In 1908 the writer was also engaged in taking photographs. The illustrations show the results obtained. It will be seen that the bridge itself was whitewashed, and a strip of linen stretched across the lower part (see fig. 2). The view obtained is shown in fig. 3. The weather was unfavourable on this occasion also, the whitened arch only being visible when an occasional puff of wind cleared away the haze. As before, during these clear intervals the entire arch could be seen distinctly through a telescope held as near as possible to the surface of the water.

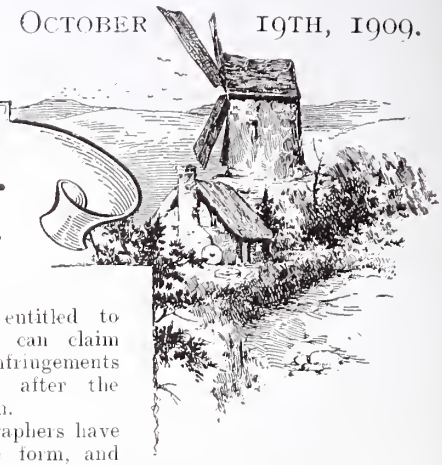
The telephotograph may not appear as distinct as might be expected when compared with many views taken at much greater distances, but if any London photographer will imagine that he has to photograph a small shop front situated at Chiswick, the camera being placed at Charing Cross, and only a few inches above the surface of a conveniently intervening canal, he will have some idea of what had to be done.

In the mind of the writer there is little doubt that this canal is absolutely level; but that in itself does not disprove the sphericity of the earth. A plausible theory is that, being situated on an accidentally flat part of the earth's surface, the water, which is trifling in volume, is held in position by gravitation following the flat bottom of the canal. The most bigoted "globularist" would not expect the water to rise above its banks to assume the curved outline which the vast bulk of mankind still associate with the figure of our "terrestrial ball."



THE LATE LORD ROBERTSON. BY WILLIAM CROOKE.

The original of this picture is No. 177 at the Exhibition of the Royal Photographic Society.



How to Secure Copyright.

By "Practicus." Special to "Photography and Focus."

WHEN the photographer has secured a picture which he thinks may be valuable for reproduction purposes, he would do well to protect his property in it by registering the copyright. To do this, if he is a Londoner, all he has to do is to go to Stationers' Hall, just off Ludgate Hill, pay a penny for a form, which he must fill up carefully, and then hand the form and a copy of the photograph to an official who is there for the purpose, and pay a fee of one shilling. He will get a receipt for his money, and if he was entitled to the copyright he can claim damages for all infringements which are made after the date of registration.

Country photographers have to apply for the form, and send the print and fee by post to Stationers' Hall. Otherwise they proceed in the same way.

Although a photograph has to be registered before any infringements of the photographer's rights are actionable, it does not follow that because a photograph has been registered, therefore the photographer who registered it is the owner of the copyright. He must be duly entitled to it, or he is simply wasting his shilling. A professional photographer, for example, is not entitled to the copyright in the photographs which he takes of sitters who come to him to be photographed in the ordinary course of his business and pay his ordinary charges. In such a case the copyright belongs to the sitter, and he can give anyone permission to reproduce his photograph without referring to the original photographer at all. But if the sitter is a celebrity who has been charged something less than the ordinary charge for his prints in order that the copyright might belong to the photographer, then the case is different. The copyright then will belong to the photographer.

The form must be filled up carefully. It is a little confusing without explanation, as it contains two columns which do not usually concern the photographer at all. One of these is headed "Date of agreement" and the other "Names of parties to agreement or assignment." These columns are provided to allow the form to apply to cases of registration of a transfer of copyright from one person to another. All the photographer who is simply registering a photograph need do is to draw a line diagonally across each column to show that when he signed the form he left those columns blank. He will have to give, in the first column, a description of the photograph. This need merely be of the briefest possible character. "Conway Castle from the Suspension Bridge" or "Portrait of Miss Christabel Pankhurst" is quite sufficient. He will then find two columns for the name and address of the proprietor of the copyright and of the author of the work, and in each of these he must fill in his own name in full, and his address. The form is then signed, and the filling in is complete.

Sometimes a print after registration is reproduced without permission. In such a case the procedure to be followed must depend upon circumstances. The owner of the copyright must not suppose that such reproduction gives him the power to wring enormous penalties out of the infringers, as the law courts have set their face very decidedly against such attempts. At the same time, something more than the fee for which the photographer would have been willing to sell permission to reproduce can generally be obtained without any trouble, but it should not be forgotten that an unreasonable demand for payment may prejudice the photographer seriously if the case should ever come into court. The best plan for the photographer who is at all likely to have any copyrights infringed is to become a member of the Photographers' Copyright Union, particulars of which can be obtained from the secretary at 23, Soho Square, London, W.

It is best to hand in with the copyright form a simple unmounted P.O.P., gaslight, or bromide print. This will cover all variations from the same negative. There is



A LANDSCAPE. BY R. G. F. BANKS.

Awarded a Certificate in the Special Subject Competition.

sometimes a difficulty in registering photographs of paintings or drawings; but in the case of portraits and views such as form the great majority of the subjects of the photographs that are registered, no trouble whatever is likely to arise. The officials at Stationers' Hall will be found very courteous and helpful, and the registration process is simplicity itself.

Having registered the copyright in this way, penalties are incurred by those who infringe it; but it is better to prevent infringement as far as possible rather than to rely upon getting penalties afterwards. A great deal can be done in this direction by the simple expedient of marking every print copyright. This will in itself discourage copying without permission. As registration does not *make* a print copyright, but merely records the claim of the photographer to his property, the actual copyright existing independently of registration, a print may be marked copyright, even if it has not yet been registered.

Another way of discouraging infringement is to take care that no prints are sent out without the conditions under which they may be reproduced being clearly set forth. The indiscriminate sending of prints to papers without a clear indication of the photographer's claims is the basis of many a copyright dispute.



"SUNNY GLADES
AND SHADY WALKS FOR RECREATION FRAMED."

BY ARTHUR G. COPPING.

Awarded the Bronze Plaque in the Special Subject Competition.

Sepia Tones on Bromide Prints.

BY NORMAN C. DECK.

THE negatives which amateur photographers get do not always possess exactly the right degree of contrast for the effect that is required, and so the normal procedure already described (*Photography and Focus*, September 7th, 1909, page 202) has to be varied somewhat.

Suppose in the first case the negative is too soft, and we need to increase contrast, we can do this in several ways.

We may give such an exposure that on complete development and fixation the shadows or dark tones of the print are as dark as we wish them to be; then, of course, the high lights will be degraded. We may then treat the fixed print with Farmer's reducer (potassium ferricyanide five grains, hypo one ounce, water four ounces), which will eat out the lighter portions of the picture more rapidly than the heavy portions, thus increasing the contrast.

Or we may reduce with the following:

Potassium iodide	40 grains
Iodine	4 ,,
Water	1 ounce

Five minims of this solution are taken to each ounce of water, and the print immersed in it, when the whites become blue, the print is then taken out and fixed. The toning of a print reduced in either way will be normal.

Or we may give such an exposure that the high lights will be just right after fixing; the shadows will then, of course, not have sufficient density, the print appearing flat and too light. We may now intensify the print by bleaching it in a solution made by adding a hundred minims of a saturated (ten per cent.) solution of potassium bichromate and five minims of hydrochloric acid to one ounce of water. The print is then rinsed quickly, and the bichromate stain removed by a one per cent. solution of potassium metabisulphite. The print is then redeveloped with strong amidol, and washed well. The intensification may be repeated, provided that this washing is thorough, otherwise the paper will be stained.

On the other hand, if the negative is too hard we may use the Sterry process, immersing the undeveloped print in a one in one thousand (one grain to two ounces) solution of potassium bichromate for varying times, the longer the immersion the softer the result. The print is then rinsed, developed, and fixed. Such a print will tone normally.

Or we may slightly over-expose and develop in the amidol developer diluted to slow the action, taking the print out when it is dark enough. This method does not usually give the best blacks, being inclined to be rusty, but toning with gold or with the mercuric-iodide-sulphide method will put this right.

The foregoing should enable one to obtain a satisfactory black and white result, but such prints are apt to grow monotonous, and do not suit all subjects. The colour of the bromide print is easily varied by toning. The richness so gained often adds quality to a rather dead-looking print. I shall give some notes first on the sulphido process, and then I shall describe some modifications of the sulphide process, giving results ranging from warm black through cold sepias to very warm sepias.

The tone resulting from the usual sulphide process is influenced by several factors: (1) Paper used, (2) developer, (3) degree of development, (4) amount of bromide in developer, (5) freshness of developer, (6) bleaching bath, and (7) state of sulphide solution. These factors I will take seriatim:

(1.) Some papers are more suited for the process than others. For instance, more liberties may be taken with Wellington bromide paper than with Barnet. Roughly speaking, the most rapid papers are the most suitable, though this rule does not always follow. Gaslight papers are not so



Bonding the Wheel. *By S. E. Jones.*

amenable as bromide papers. This cause of variation will be elaborated under the other headings.

(2.) It is better to eliminate this cause of uncertainty by keeping to one developer, although I have not found very much difference between the results, provided development is carried right to the limit.

(3.) With Wellington bromide papers complete development is not essential, provided, of course, that the print has proper contrasts; but with Barnet I find it is quite necessary to carry development as far as it will go. They will then give excellent results.

(4.) The more bromide in the developer the warmer the tone, even though the development is complete. Again, Wellington paper is less susceptible to this action.

(5.) The freshness of the developer has a great influence on the resultant tone. The solution must never be overworked, or the prints will tone to an unpleasant ochre, as before noted.

(6.) I use three bleaching baths—

A.—Potassium ferricyanide	... ...	10 grains
Potassium bromide	... ...	10 ,,
Water	... ...	1 ounce
B.—Potassium ferricyanide	... ...	20 grains
Sodium chloride (common salt)	... ...	40 ,,
Water	... ...	1 ounce
C.—Potassium bichromate (10% solution)		... 100 minims
Hydrochloric acid	... ...	5 ,,
Water	... ...	1 ounce

Of these, A gives a good sepia; B and C both give similar sepias, warmer in tone than A. B is rather slow-acting and reduces slowly, as will be explained later. I have seen it stated that the bath containing salt gives a colder tone than the one containing bromide, but such has never been my experience with any of the bromide papers I have tried.

(7.) The sulphide solution should always be kept well concentrated and well stoppered, and should be diluted to a strength of one per cent. for use. The dilute solution should be thrown away after use, or hypo will be formed, resulting in a very weak tone. After toning, the print should be rinsed quickly, and immediately immersed in the alum solution. The gelatine, from being soft and slippery, in an instant becomes tough like leather, and blisters are impossible.

As sepia tones are getting exceedingly common, the intermediate tones between black and warm sepia will be welcome to many, and these are obtained in a variety of ways.

For example, we may use bath B for bleaching. This bath is slow in action and quite even, unlike baths A and C, and so we may stop bleaching at any stage and then rinse and sulphide the print. The greater the bleaching the warmer the tone. This method gives good tones, but I prefer for richness the next method.

This is to bleach right out in bath C. The image then consists of silver chloride. The print is rinsed and immersed in a one per cent. solution of potassium metabisulphite until the bichromate stain is eliminated, and is then immersed in a fresh bath of metabisulphite, to which has been added ten minims of hydrochloric acid to the ounce, and the print is exposed to direct sunlight in the solution. The sulphurous acid formed acts as a reducer, and the print darkens fairly quickly until it finally becomes a dark plum colour. The print at this stage or any of the intermediate stages of darkening is not satisfactory, as the shadows appear blocked up; but it is then put into the sulphide bath and allowed to remain until action is complete, which takes a very little time. The print, which darkened to a plum colour, will tone to an exceedingly fine warm black when dry (using Wellington or Barnet paper); but, if it has not been acted on by the sun, it will tone to a rather too warm sepia, and any intermediate step may be obtained by varying the sunning of the print. Care must be taken to sulphide the print completely, and then the result will be quite permanent. This toning method gives the closest approach to carbon that I have ever seen, especially on a velvet surface paper or steamed print. Bleaching baths A and B may be used in this way, but the range is not as great.

Another variation is to tone the print partially in the tabloid copper ferricyanide toning bath. It is then washed for half an hour, and toning is completed in the sulphide bath. The longer the preliminary toning the warmer the resulting final tone. This method gives exceedingly fine results—equal, I think, to the preceding method, especially in the warm black. The warm black is obtained by toning in the copper bath until the warm copper tone is just perceptible. The usual copper tone I have not found to be permanent, but this modification is, I think, absolutely so.

A beautiful warm black or cold sepia of quite a different character may be obtained by toning a slightly weak print in the tabloid mercuric iodide intensifier (which, by the way, does not intensify bromide prints). The print should be allowed to remain in the bath until the action is complete. It will then be a disagreeable yellow-greenish black. It is then washed for a quarter of an hour, and toned in the one per cent. sulphide bath until action is complete. The resulting tone is quite permanent, and resembles very closely a mercury-toned platinotype. The print will usually be slightly stronger, except when the original print was a rusty black from incomplete development or exhausted developer, when the tone will be warmer, but there will be practically no increase of density. ("Australian Photographic Journal.")

A mounted print may sometimes need removing from its card, either that it may be remounted on a fresh one, or that it may be restored or treated in some further manner. To do this there is only one safe method, and that is to allow it to soak in cold water for some hours, or at least until it will come away from the card quite freely. If there is any strain on it there is a risk of tearing, so that this is pre-eminently a job that must not be hurried. If it is a print on albumenised paper, or if it is a platinum print, the water in which it is soaked may be warm; but a print on any gelatine paper would be ruined at once if put in hot water, and even with albumenised prints there is a risk of blisters forming. So that cold water is best.



MAKING THE BEST OF IT

A Series of Suggestions for Making Good Prints from Poor Negatives

By Chas. M. Lewis. (Special to "Photography & Focus.")

Drying Marks.

IT is well known that if one part of a negative is allowed to dry at a different rate from the rest, there is a great likelihood of the two parts differing in density. The marks which are caused in this way are known as drying marks. It might be supposed that all that has to be done to a negative which has this defect is to soak it in water and allow it to dry uniformly, but unfortunately this has no effect upon the marks at all.

They can be got rid of, however, by treating the negative with chromic acid and redeveloping, as described under the heading of halation. In this case, however, the second development should be carried as far as it will go, and the negative may then simply be washed and dried, a second fixing not being necessary.

There are drying marks which are very similar in appearance to those that are produced as above described, but which are caused by uneven drying or some kindred defect when the plate is being made. They do not yield to this treatment, but are very rarely met with.



WET WEATHER. By J. TATESON.

Awarded the Second Prize in the Beginners' Competition.

Mottling and Reticulation.

THESE two defects are somewhat similar in appearance, although due to entirely different causes, and not to be mistaken one for the other. If the dish in which the negative is developed is not gently rocked from time to time, the negative will be found to be disfigured with mottled markings wherever there is much area of deposit. The sky is where this mottling is most often seen, the streaks being lighter than their surroundings.

Reticulation makes its appearance as a very fine network of lines, usually extending over the whole of the negative, and following to some extent the lines of the image. It is due to the gelatine of the film being attacked in some way and commencing to decompose. Thus, the use of a very strongly alkaline developer, such as is often advised with hydrokinone, will bring this on; as will the use of a very warm developer, drying the negative by heat in front of a fire, or even drying it in sunshine. Reticulation is more often met with in summer than in winter. Carbon prints sometimes suffer from it.

There is no real cure for either of these defects; they go right down through the image and practically ruin the negative in which they occur. For this reason, then, it is important to guard against them, rocking the dish from time to time, and avoiding anything likely to bring on reticulation. If they occur the only plan is to minimise them by resorting to diffusion methods in printing. These are more effective in the case of reticulation than in that of mottling, as the marks in the former are often very fine, and by interposing a sheet of celluloid between the negative and the paper in printing, the slight blurring produced may conceal the reticulation altogether without being so great as to be distasteful. No doubt, if it were ever worth the trouble, the marks in a bad case of mottling could be retouched out; but the labour would be excessive, and it is difficult to see what could justify it. If the negative is to be enlarged, mottling, if not too bad, can be concealed by making the enlarged negative on paper, and working on it with a stump.

Airbells.

AIRBELLS adhering to the plate while it is in the developer give rise to spots of clear glass or at least of less density than their surroundings. They are easily recognised from their perfectly regular circular outlines; and are much more likely to be met with if the plate is wetted with water before applying the developer.

There are two remedies for these defects. One is to take a fine brush and some opaque pigment, and to block out the spot entirely, so that it will print white. Then, on the print, with a little water colour mixed so as to match the tone as closely as possible, the spot is carefully brought down to the same tone as its surroundings. A preferable course is to touch the airbell out on the negative, as this does away with the need for matching the colour of the print, often not at all easy. The airbell is just dabbed with a trace of retouching medium applied with the finger tip, and then with a very finely pointed pencil, a series of little strokes are made until its density is that of the surrounding parts. If these are fairly light, it will be found easy to apply enough lead to do what is wanted. If the amateur at retouching finds that his pencil marks show too plainly, although the general tone arrived at is what he wants, this can be remedied by interposing a piece of celluloid, or even of *papier minéral* or tracing paper between negative and sensitised paper during printing.

Magnesium Light Portraiture.

An Article for Beginners. BY THOMAS BELL.

Describes briefly and pithily how to set about taking portraits by flashlight which shall be free from the defects which so often spoil the amateur's results when magnesium is used.

IT is not at all difficult, as a general thing, to distinguish between a daylight and a flashlight portrait. The latter is usually the worse in several ways, and the use of magnesium light in photography is under a stigma in consequence. Flashlight portraits are generally very harsh in their contrasts, the lighting seems to be carried out haphazard, the eyes of the sitter look strange, and there are ugly shadows where there should be none. It is natural that these defects should be looked upon as defects that are inherent in flashlight work, so common are they; yet this is unjust to the process, since they can be entirely avoided by taking proper care. Without any attempt to copy daylight lighting deliberately, it should be easy to make flashlight portraits which will not appear to differ in any way from those taken in daylight; and it is the object of the writer to show how this may be done.

Flashlight is a term which is applied indiscriminately to photography with pure magnesium powder and to photography with various compounds known as "flash powders." The use of these is quite distinct, and a flash powder must never be mistaken for ordinary magnesium powder or very serious trouble may ensue. Magnesium powder is not in the least explosive, and it can therefore be used in lamps, in which the powder is put into an enclosed vessel and is then blown through the flame of a spirit lamp. It would be very dangerous to do this with a flash powder, as this is explosive, and the lamp would probably be blown to pieces. The lamps for flash powder, therefore, simply carry the powder in a little heap and light it at the required moment, the powder burning of itself, without requiring to be blown through a flame.



Leisure Moments. *By R. W. Hogben.*

Lamps for Magnesium Powder.

When the plain magnesium powder is used, some form of a lamp is a necessity. There are a number of different patterns on the market, and there is not very much difficulty in making a lamp, if the photographer does not want to buy one. A tobacco pipe may be used, if it is provided with a foot so that it will stand firmly with the mouth of the bowl uppermost. A little loose lamp-wick is wound round the outside of the bowl and is saturated with methylated spirit. The magnesium powder is put into the bowl, and the stem of the pipe connected with a piece of rubber tubing ending in a pneumatic ball. The spirit being lighted, the ball is pressed and blows the magnesium powder through the flame, giving rise to a brilliant sheet of flame. The powder may be blown with the mouth, if a bulb is not convenient.

All lamps for burning the plain powder are, more or less, on this principle. If they are to be efficient they must burn the whole, or almost the whole, of the powder that is blown through the flame. To test this, the lamp should be stood on an open newspaper and the flash let off, standing ready to put out the paper should any of the burning particles set light to it. Some unburnt magnesium is sure to be found on the newspaper afterwards, and the quantity of this which is present is a measure of the extent to which the lamp fails to ignite all the powder. It will be found that a large spirit flame, and not too violent a pressure of the bulb, will go a long way towards securing completeness of the combustion. The duration of the flash with these lamps is generally longer than with flash powder, but not long enough for there to be much chance of any movement of the sitter showing on the negative.

Apparatus for Flash Powder.

The devices for igniting flash powder are hardly "lamps." They are generally arrangements by which, on pressing a button, an electric current is allowed to pass, which current heats a short length of wire that is buried in the powder, and so inflames it, or else a match is struck automatically. There is no real need for either arrangement. The writer has got on very well by merely making a heap of the powder on a metal tray and lighting it by a taper held in a taper holder or tied to the end of a long stick.

The Quantity of Powder Necessary.

The harshness which is seen in so much flashlight work is due to under-exposure and over-development, the primary cause being the use of too little powder. It is not always recognised that the conditions under which the work is being done have a very great influence indeed on the quantity of powder that is required. What would be enough for a head and shoulders portrait might be quite insufficient for a full

length, because the flash might have to be much further from the sitter. What would suffice in a small room with light walls, which would act as reflectors, would be quite insufficient for the same subject in a large room, or one panelled in dark oak or with a dark or deep red paper on the walls. The lens and plate are also important factors.

The photographer for flashlight work should use as fast a lens as possible. A portrait lens working at f/4 is the most suitable; but it is not every amateur who has such a lens at his disposal. In my own case an anastigmat with an aperture of f/6.3 is what is generally used, but if I had a more rapid instrument I should certainly give it the preference. For a head and shoulders portrait, using the lens at f/6.3 and employing both a reflector and a diffuser, as will be pointed out later on, the quantity of magnesium powder required I find to be twenty grains. This is burnt in an efficient flash lamp at about eight feet from the sitter, the plate used being a very fast one of the studio grade. A full-length figure would require quite twice as much if the flash is removed to ten or eleven feet from the sitter. The quantity of flash powder needed for the same purpose depends upon the make; the makers generally give particulars of the amount they recommend for different purposes. It is well, as a rule, to increase their amounts to about half as much again, to allow for the diffuser, and to guard against under exposure.

It is not easy for the amateur photographer to arrange to let off two or three flashlights simultaneously to secure a distribution of the light, and so some form of diffuser must be used. While this is of great service in making the lighting less harsh, it cuts off a good deal of the light, and so its use entails the use of more of the powder. Tracing cloth has been recommended for the purpose, but I prefer to employ a large light wooden frame, across which is tacked a strip of fine muslin. The muslin is made thoroughly wet, to avoid any risk of a particle of the magnesium setting it on fire, and the frame is hung up about eighteen inches in front of the flash.



AT THE VILLAGE MARKET. By P. S. JOSHI.

Awarded a Certificate in the Advanced Worker's Competition, just closed.

The Position of the Flash.

The position of the flash with reference to the sitter is all important, since it is practically the only means we have of regulating the lighting. The most common mistake is to put it too low. In an article in *Photography* about two years ago, it was stated that it should be high enough above the sitter's head for the light to fall at about 45° with the vertical, and this is a good position for preliminary attempts. It should not be regarded as a rule, however, and it will often be found that a lower position than that suggested is to be preferred. It will very rarely happen, however, that the lighting will be successful when the light is as low, or nearly as low, as the top of the sitter's head.

The flash must not be in the line joining the lens and the subject, or the lighting will be much too flat. It is well to have it well to one side of that line, the sitter's face being turned towards the other side of the camera, so that more is shown of the light than of the shadow side of the face. But these are only suggestions for beginners, and must not be regarded as rules. On the shadow side of the face it is well to fix up a large white reflector—a tablecloth thrown over a screen answers the purpose very well. It is better to have it large and a few feet away from the sitter, rather than small and close, as in the latter case there is a risk of false lighting effects.

Look out for Reflections and Shadows.

The background should be so placed that there is no risk of shadows falling upon it where they will appear in the picture.

The room should be as brightly lit as possible, to prevent the eyes of the subject having that strange look which is given by the pupils being enlarged owing to the room being dark. Care must be taken that none of the lights in the room can shine into the lens, and that no mirrors or picture glasses will reflect the flash into the lens. This can be ascertained by placing an ordinary lamp where the flash is to be.

The lens may be uncapped a second or two before the flash, and capped again after it has taken place. If it is fitted with a diaphragm shutter, it is convenient to set the indicator of this to "T," and couple up the tube with the tube of the flash lamp, so that the same pressure opens the shutter and makes the flash; a second pressure is then given to close the lens.

There is not much in the way of technical data to add. The developer employed should be the one given by the maker of the plates, if portrait plates are being used, as this will be sure to give soft negatives, and softness is the desideratum in flashlight work. Great care should therefore be exercised not to over-develop the plates. If these few precautions are taken, it will be found to be comparatively easy to make portraits by means of magnesium light which shall have all the quality and gradation that can be secured with daylight.



GILMOREHILL—EVENING

BY PETER ORR

The original of this picture is No. 159 at the Exhibition of the Royal Photographic Society.

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A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

I WANT you this week to consider, first of all, a picture entitled "A Summer's Day," and to ask yourself what there is, about it, which distinguishes it from many other similar riverscapes which have appeared in these pages. What your reply might be, I do not know; but as soon as I set eyes on this print it struck me that the maker of it had very sensibly done without a sky. Judging from the shape of the print, she has had a sky, but has trimmed it off. True, there is a wee glimpse of it in the top left-hand corner; but otherwise, to all intents and purposes, this picture is skyless.

I do not insinuate that this is a great pictorial work, but it is pleasing, in a quiet, sane style; and though it may be asserted by the hypercritical that it tends to be spotty, and its interest therefore is somewhat scattered, I must reply that the inclusion of the sky would have made it spottier, more scattered still. By cutting off the sky the photographer has concentrated interest, as far as in her lay, on the genuine subject of the picture—the bright little brook. Personally, I think she might with advantage have cut off even that atom of sky which still remains, and the work would have been the stronger for its absence. That high light at the very edge of the frame draws away attention, a trifle, from the central portions. Cover it with your finger, and you will observe a perceptible reinforcement of the apparent brilliancy of the foreground.

So what I propose to talk about in this "Causerie" is the rather Irish theme of Skies Which Are Not There. Too many people are afraid to do without the sky in their landscape pictures. They seem to think its inclusion necessary, when as a matter of fact it may be quite unnecessary. And it is desirable for the beginner to grasp this truth; for the beginner is likeliest to make a hash of his sky—to make it blank white paper, which does not in the least represent what Browning called "the sky imbrued with colour." Just because skies are imbrued with colour they are a pitfall to the photographer; for so high is the key of their colour, and so faintly differentiated, to the plate, are the shades of that colour, that they often disappear in the negative, if the landscape section of it is fully developed out. The result is a negative which isochromatic screen manufacturers and theoretical textbook writers may condemn, but which practical people like myself may praise as, really, a perfectly good production—if only you will have the sense to cut off its sky.



Italian Shepherd and Flock. *By M. S.*

Now look at "Italian Shepherd and Flock," a nice Continental holiday snap-shot, somewhat under-exposed and over-developed, and with a sky which, though it has a few tones in it, cannot possibly be said to represent either clouds or cloudless blueness. The sloping line of the top of the trees is useful to the composition, such as it is; and in point of fact the best remedy for this picture's faults would be to print in a suitable sky. But so few people are capable of printing in skies properly!

Why not, then, trim off this sky altogether? The subject of the picture, we are told, is the flock. What better way of drawing attention to the flock than to make its collective backs the highest light in the picture by amputating the heavens altogether? Try it, and see how the flock leaps into prominence when it no longer has to compete with that patch of white up aloft. If simul-



A Summer's Day. *By Miss Etta Shankland.*

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GRIFFIN'S NEW GASLIGHT PAPER

taneously you place your finger over the pile of white stones on the left, you will still further enhance the flock's value.

The moral is that if we wish to make a pictorial enlargement of this really pretty little snap-shot we should abandon the sky, and, if possible, contrive to tone down the patch of stones. Then we shall see and appreciate the flock far better than we can do now.

The presence of a sky is not needed to persuade us that the sky was really there: we can trust our own commonsense for that assurance. "Spring Sunbeams" is another justifiably skyless print: and as we can believe in the existence of a top to the tree on the left, though we only see its trunk, so we can believe in the existence of the sky, though we only see the lights and shades due to it. The photographer could easily have tilted his camera to include some sky, but had he done so his picture would not have been half so pleasing as it is. As a matter of fact, it is one of the best composed photographs that has passed through my hands for a long time.

The figures are well placed, and the general fuzziness helps the shimmering sunshine effect (which latter will probably be lost in reproduction). The long foreground makes for strength, and the heavy tree trunk acts as a balance and foil for the figures. All this, I am positive, would have been weakened had the photographer been a slave to the sky-inclusion habit. Even glimpses of sky between the leaves would have made for a scattering of interest.

In the very pleasant "At Zaandam" there are glimpses of sky between the leaves, and the result is distinctly spotty. Cut off all the top of the print down to the point where the branches spring from the trees just beyond the statue, and, though you sacrifice much, you "pull" the rest "together" to a degree which almost justifies the said sacrifice, and, too, you lose none of the feeling of brilliancy.

The tree trunks on the right become rather stumpy, though, when you trim so ferociously: and I am inclined to think that, this being the case, a toning down of the upper expanse of spottiness would be preferable to trimming off. It would be easy to tone down that glittering upper part by sunning it after taking the print from the printing frame. But it must not be sunned too much, or the lightness below will become incredible owing to the apparent thunder cloud above.



At Zaandam (Holland). *By S. T. Dobbs.*



Spring Sunbeams. *By Bernard Gorter.*

Spottiness of this type is, of course, true to nature, and, indeed, is not unpleasing when properly managed. One good way to soften it is by making it less sharp. This can be done by fuzzy focussing; but the result is too often a mass of round and swollen circles of whiteness which bear no resemblance whatever to the effect as seen by the eye, and which are almost always quite inadmissible. A better way, therefore, is to make your negative as sharp as may be—as sharp as this one is, for instance—and then print it through the glass side of the plate. This introduces a slight diffusion, which relieves the spottiness by making the individual outline of each separate spot a trifle less harsh. At any rate, it is worth trying, when you have secured a sunshine effect so excellent as is this one.



The Promise of Rain. *By Colmar Wocke (Port Elizabeth S.A.).*

Wellington

S.C.P.



THE "QUEEN" OF GASLIGHT PAPERS.

W.

In my experience, the dodge of enlarging through bolting silk has to be done either very skilfully or on a very large scale not to produce a wooliness trying to the eyes. The fuzziness produced by printing through the glass has quite a different quality, and to my eyes a more restful one.

Of course, some landscapes simply cannot exist without their sky; and in conclusion I reproduce a typical specimen of this latter class—"The Promise of Rain." It may be remarked that this is more a skyscape than a landscape; but the sky's dependence on the land is immediately proved if you trim off the land and look at the sky by itself. The land is part of the story, and an integral part to boot There is a curve in the foreground which is essential to the composition; and without the long, serene line of the distant hills the horizon would have been far too abrupt.

Cut off all the sky, and nothing remains worth looking at. Why? Because of the absence of any high light in the foreground. As soon as you begin to get foreground high lights, as soon as the chief object of your picture is to be found below the skyline, you may consider the advisability of doing without your sky altogether. I don't insist that you shall always make skyless landscapes—that is nonsense. But I should like to point out that the secret of success in landscape (and other open air) work quite as often consists of the removal of the sky as of its inclusion.

The Watkins Focal Plane Meter.

THE latest meter to be issued by the Watkins Meter Co., of Hereford, is known as the Focal Plane Meter, not that it is in any way limited to photography with focal plane shutters, but because it is designed for use in hand camera and other very rapid exposures, for which the focal plane shutter is a favourite.



The new meter differs from its predecessors in two important directions. For one thing, it gives not the full exposure indicated by the other Watkins meters, but the minimum exposure which can be expected to yield a satisfactory negative; that is, one-half as long as the others give. This is advantageous, since in the purposes for which it is used the length of exposure possible is almost always limited by the subject. The other difference is in the arrangement of the graduations on the dial, which are so disposed that the shutter speeds come opposite the stop numbers. The advantage of this will be apparent, when the conditions under which this meter will generally be used are borne in mind.

With a stand camera, one sets up the apparatus, decides what stop to use, and then ascertaining the correct exposure by means of the meter, gives one of that duration. In hand camera work this is not usually possible, and the subject is approached the other way round. That is to say, the speed of the shutter is determined by the subject, and then the meter is used to see whether the light is strong enough to allow the exposure to be made with any chance of success and to decide what stop may be used. This can be done with the Bee meter of the usual form; but the new meter by the arrangement of its scales makes it much easier, and by giving the minimum exposure that is anywhere near correct, is more in keeping with the needs of the hand camera worker.

The price of the Watkins Focal Plane Meter, complete with speed card and booklet of instructions, is 3s. 6d.

The Week's Meetings.

MONDAY, OCTOBER 18TH.

Walthamstow P.S. Annual General Meeting.
South London P.S. Monthly Competition.
Bradford P.S. "Preparing the Exhibition Print." T. Lec Syms.
Stafford P.S. "Newest Printing Methods." Griffin, Ltd.
Preston C.C. "Autotype." T. C. Chandler.
Leeds C.C. "Flashlight Photography." F. C. Hart.
Royal (Exhibition). "Wild Birds and their Ways." W. Bickerton.
Walsall P.S. "Ensyna." F. J. Stedman.

TUESDAY, OCTOBER 19TH.

Sheffield P.S. "Scamper in N. Europe." J. I. Learoyd.
Leeds P.S. "Autochrome Plate." T. K. Grant.
Bradford G.S.P.S. "Photographic Facts, etc." C. E. Jackson.
Hackney P.S. "Outdoor Portraiture without Retouching." S. Woodhouse.
Colne C.C. "Artistic Mounting of Prints. H. Mills.
Nelson C.C. "Romantic in Landscape." W. E. Cork.
Tathury C.C. Exhibition of Lantern Slides.
Birmingham P.S. Annual Meeting.
Glasgow S.P.A. "Pictorial Quality." P. Mitchell.
Otley and D.C. & A.S. "Yorkshire Coast." N.E.R. Slides.
Halifax C.C. "Zimmermann's Flashlight Specialities." Mr. Hart.
Fernhead W.G.P.S. "Carbon Process." H. Fisher.
Nelson P.S. "Artistic Mounting of Prints." H. Mills.
Manchester A.P.S. "Intensification and Reduction." H. Wade.
St. Helens C.C. "Five Days in the Wild West." W. Webster.
Wallasey A.P.S. "Autochrome Demonstration." A. J. Keay.

WEDNESDAY, OCTOBER 20TH.

Ilford P.S. "Oil Process." J. C. Nunn.
Balham C.C. Members' Night.
Rochdale A.P.S. "Telephotographic Lenses." F. W. Parrott.
G.E.R. Mech I. "Exposure." H. W. Bennett.
Croydon C.C. "Photography as Aid to Astronomical Research." C. W. Raffety.
Sale P.S. Discussion.

THURSDAY, OCTOBER 21ST.

Trent C.C. "Dordrecht." E. Marks.
Preston C.C. "Plates, Films, and Exposures." W. E. Morris.
Glasgow E.P.A. "Naturalist's Rambles in Bute." J. Ballantyne.
Batley & D.P.S. "Portraiture." H. Crossley.
Brighouse P.S. "Lantern Slide-making." Dr. Farrer.
Rodley, Farsley C. & B.P.S. "Flowers." Mr. Atkinson.
Rugby P.S. "Lantern Slide-making." B. B. Dickinson.
Bolton C.C. "Production of a Newspaper." C. Coates.
Borough Poly. P.S. Collective Exhibition Competition. P. Bale-Rider.

THURSDAY, OCTOBER 21ST (*Continued*).

Small Heath P.S. "Autochromes." W. Partridge.
Hull P.S. "Platinotype." Rev. J. Beauland.
Nottingham C.C. "Oil Process." W. H. Kirkland.
Heaton & D.C.C. "Tips and Hints." E. Lee.
Brunswick C.C. "Kodak Developing Machine." Watsons, Ltd.
Handsworth P.S. Annual Exhibition.
Aston P.S. "Bromoil." J. C. Richards.
Richmond C.C. "Exposure." J. D. Gibson.
Liverpool A.P.A. "Modern Photographic Chemicals." F. C. Hart.
Royal (Exhibition). "Home Life of Wild Birds." W. Farren.
Coalville & D.P.S. "Control in Printing and Developing." W. T. Mason.
Chelsea & D.P.S. Lantern Evening.
Boro. of Tynemouth P.S. "Lantern Slides." J. Barr.
Snow Hill C.C. "Bromoil Printing." Mr. Gale.
Leek P.S. Whist Drive.
Armley & Wortley P.S. "Enlarged Negatives." F. Rust.
Leicester Lit. & P.S. "Lantern Slide-making." A. Bailey.

FRIDAY, OCTOBER 22ND.

Wakefield P.S. "Colour and Colour Photography." C. B. Howdill.
Colne C.C. "Oil Printing." J. J. Hartley.
Birkenhead P.A. "How I Make a Transparency." C. J. Whitehead.
Ashton-under-Lyne P.S. Whist Drive.

SATURDAY, OCTOBER 23RD.

Southend-on-Sea P.S. Stamhridge Mill and Temple Sutton.
Wallington C.C. Exhibition of Lantern Slides.
Glasgow S.P.A. Uplawmoor.
Worthing C.C. Shoreham.
Aston P.S. Midland Photographic Federation.
Royal (Exhibition). "Romance of Plant Life." F. M. Duncan.

MONDAY, OCTOBER 25TH.

South London P.S. "How to." H. Creighton Beckett.
Bradford P.S. "Wellington and Ward's Specialities." A. R. Sharpe.
Marylebone C.C. Thumb *v.* Mechanical Means of Photography." Dr. F. Ellison.
Preston C.C. "Queen of the Fenlands." W. Cowperthwaite.
Walsall P.S. "Photographing Microscopic Objects." A. Leal.
Royal (Exhibition). "Trip Round the World." C. J. Marshall.
Leeds C.C. "Oil Printing." C. F. Inston.
Leek P.S. "Thornton-Pickard Demonstration." Mr. Hesketh.
Sidcup C.C. "Ozobrome." T. Manly.
Oxford C.C. R.P.S. Lecture on 1908 Prints.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

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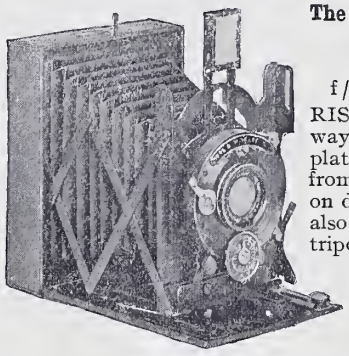
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„ 109. 5×4 Popular Model 1909 Adams' **VIDEX,** three slides and "A" twelve-plate changing box, Ross Homocentric f/6.3 lens; cost £24 17s. 6d.; condition as new	18	10	0
„ 126. $4\frac{1}{4}\times3\frac{1}{4}$ Adams' **IDENTO,** Ross Homocentric f/6.3 lens and adapter for Premo film packs, eight-plate Adams' changing box, one double dark slide and leather case; cost £16 3s. 6d...	10	10	0
„ 132. Adams' **VIDEX,** 5×4, and six double slides and leather case, no lens; cost £26 6s. 6d. ..	13	10	0
„ 153. 5×4 **SANDERSON,** rapid rectilinear lens, T.-P.shutter,3 mahogany slides, Zeiss roll holder, extra reversing frame, leather case; cost £12....	4	15	0
„ 159. 5×4 Adams' **VIDEX,** no slides, 12 pl.changing box, 8in. Zeiss Planar lens, f/4; cost £40 12s.	18	15	0
„ 165. Adams' 5×4 **VIDEX** and six double dark slides, no lens; cost £24 11s. 6d.	14	14	0
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„ 170. **CARL ZEISS** Complete Telephoto lens, high power, tube No. 3, telepositive 135 mm., f/3; cost £15 15s.	7	10	0
„ 180. Newman & Guardia's Quarter-plate **NYDIA,** Ross lens, and leather case, as new; cost £10.	6	0	0
„ 182. 5×4 Adams' **YALE** for twelve plates, Cooke f/6.5 lens, and leather case; cost £16 18s. 6d.	6	15	0
„ 186. 5×4 Adams' **VIDEX,** three double dark slides, 7in. Ross Homocentric f/6.3 lens, and leather case; cost £29 5s.	16	16	0
„ 188. 5×4 Adams' **IDENTO,** Zeiss patent Protar lens, $6\frac{1}{2}$in., f/6.3, and film pack adapter, and best pigskin leather case; cost £21 6s.	12	10	0
„ 190. $\frac{1}{2}$-pl. **GOERZ ANSCHUTZ,** Goerz 7in. f/6.8 Dagor lens, 4 dbl. dark slides, daylight loading roll holder, leather case; cost £19 18s.	9	10	0
„ 192. $\frac{1}{4}$-pl. Adams' **IDENTO,** Ross Homocentric f/6.3 lens, 3 dbl. dark slides, and Adams' 12 pl. changing box, best leather case; cost £17 8s...	10	17	6
„ 195. 5×4 Adams' **REFLEX,** 6 dbl. dark slides, Adams' "Challenge" R.R. lens, extra focussing hood, best waterproof case; cost £23 1s.....	7	17	6
„ 200. Postcard $(5\frac{1}{2}\times3\frac{1}{2})$ Adams' **IDENTO,** film pack adapter, Zeiss patent Protar lens, Series VIIa. No. 7, and case; cost £21 2s. 6d.	15	10	0
„ 203. $\frac{1}{4}$-pl. Adams' **VIDEX** and 3 dbl. dark slides, Busch 6in. Omnar lens, f/5·5, best leather case, also 3 extra dbl. dark slides; cost £28 7s. 6d...	16	0	0
„ 206. 5×4 Adams' **VIDEX,** Adams' best 12 pl. chauging box, adapter for Premo films, best waterproof case, patent four-way swing front, Ross 7in. Homocentric f/5.6 lens; cost £35 6s. 6d...	16	16	0
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„ 214. Adams' **VESTA,** $3\frac{1}{2}\times2\frac{1}{2}$, with Carl Zeiss Tessar f/6.3, and six slides in case; cost £11 11s.	8	10	0
„ 217. Adams' $\frac{1}{4}$-pl. **VIDEX** and 6 dbl. slides, no lens, cost £23 2s. 6d.	11	15	0
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"The time has come, the Walrus said, to talk of many things."

AS it is not so very long ago that I described a photographic nightmare with which I was favoured I hardly like to refer to another one that arrived last night. Readers will come to the conclusion that, as punishment for my disgraceful levity on the subject of photography, the watches of the night are deservedly made hideous to me by appropriate nightmares, and they will gloat accordingly. It would be an entirely misapplied gloat. Almost invariably I sleep the sleep of the just—the calm slumber which results from good digestion and a clear conscience. (Loud laughter.) But I caught it last night.

* * *

I was to give a lantern lecture somewhere. (Here I have a faint suspicion that the dream was, after all, retributive.) I arrived at a huge hall, with a box of incomplete slides; as to what they were, and what was the subject of my lecture, I was in complete ignorance. I was clothed in villainously ragged garments, and was uncomfortably conscious of the entire absence of a collar. As I entered the vast room I beheld my first slide already on the screen, and realised that I was late. As I walked down the gangway I began to describe the picture on the screen. Although I shouted at the top of my voice I was conscious that I was quite inaudible, as no one took the slightest notice. Not only that, but the screen instantly shrunk to the size of a sheet of notepaper, and began to vibrate so rapidly that it became invisible.

* * *

Meanwhile the already large audience was being swelled by processions of solemn pundits, who filed in and took their seats with the evident appearance of expecting a discourse of the most abstruse nature. They would have made even Dr. Mees feel nervous. At the same time hundreds and hundreds of youngsters were pouring in pell-mell, clearly eager for a comic kinematograph and obviously expectant of chromatropes. Without waiting for this miscellaneous inflex to cease, and in the midst of a perfect pandemonium, I was brusquely requested to get on with the lecture; and there I stood in all my shabby insignificance, dumb with consternation.

* * *

My tremulous suggestion that the lantern screen was still invisible was followed by the sudden appearance of a kind of patchwork quilt several acres in extent. It was torn into many strips, each of which hung at a different angle. Traces of very minute pictures appeared on this in all sorts of unexpected places, and I commenced running frantically up and down in an entirely bootless effort to identify one of them and say something about it before it vanished. The pundits filed out as silently as they had filed in; the children were vigorously engaged in varied games; the lantern in the distance was a huge conflagration. In the twinkling of an eyebrow I was a dominant personage in resplendent evening dress; confronting me were miles and miles of wrapt faces; the mighty multitude hung on my words as they watched the most superb pictures in living moving colour on the screen. I was a gorgeous success, until I was jolted rudely in the ribs and informed that it was time to get up. I got up.

* * *

By a curious coincidence, amongst the letters on my breakfast table was one asking me to explain the meaning of the title of a lecture advertised amongst the week's meetings in this paper (October 5th). The title was "Basiliconthaumaturgical Views." I thought at first it was merely a fag end of my dream, but feeling in perfect health and finding the announcement still there I suppose I must explain it, although I have not the faintest notion of its meaning. I suppose my correspondent did not apply to the lecturer himself because he realised that he would be the last one to know what it meant.

Although the word basilicon is strange to me I know perfectly well what a basilica is, and have seen several. They were originally large public halls, with colonnades at the sides and an apse at one end. All those I have seen have been converted into places of worship or else have been specially built for this purpose after the original basilica design. Then I know that thaumaturgical means very wonderful or miraculous. Hence I conclude that the Basiliconthaumaturgical Views are photographs of the miraculous relics to be found in various basilicas.

* * *

This conclusion is almost certain to be quite erroneous. But what a ripping subject it suggests for the photographic lecturer. In the Middling Ages the collection of relics used to be quite a hobby, much as one now collects postage stamps, or coins. The catalogue of one wealthy German collector included no less than forty-two complete saints, and some of the earth from a field near Damascus from which Adam was modelled. That would be a fine subject for a lantern slide. But the lecturer who wanted to do full justice to his subject would have a busy time. Suppose for example he wanted to show a set of slides of the relics of a certain saint who is always represented by one of his thigh bones, he would have to ferret round a good many basilicas before he got the complete set of thirty-nine.

* * *

Still suspecting that I may be on the wrong tack I have referred to a dictionary and find that there really is such a word as basilicon, and that it is the name of a kind of ointment made of wax, pitch, resin, and other delicacies. So after all the lecture may be intended to indicate the miraculous properties of this ointment, and the views may show the results of its use.

* * *

Even now my learned conclusions from Greek roots may have misled me, and the lecture may simply be a display of common or garden slides projected by some new form of lantern or on to some novel screen. Or basiliconthaumaturgics may be some branch of chemistry, or biology, or botany, or it may have some bearing on female suffrage or the budget. Not that I care twopence what it is, or what it means. It is surely bad enough to have a photographic nightmare without being plunged subsequently into photographic daydreams on a ridiculous and incomprehensible topic. Why in the world could not my questioner go to Halifax to hear the lecture himself? He lives in Yorkshire. He can get to Hull or Halifax quite easily.

* * *

However, I don't wish to be cross, and I will start all over again and try to explain what is really meant by Basiliconthaumaturgical Views. [Not to-day, please.—ED.]

THE WALRUS.

SUBSCRIPTIONS.

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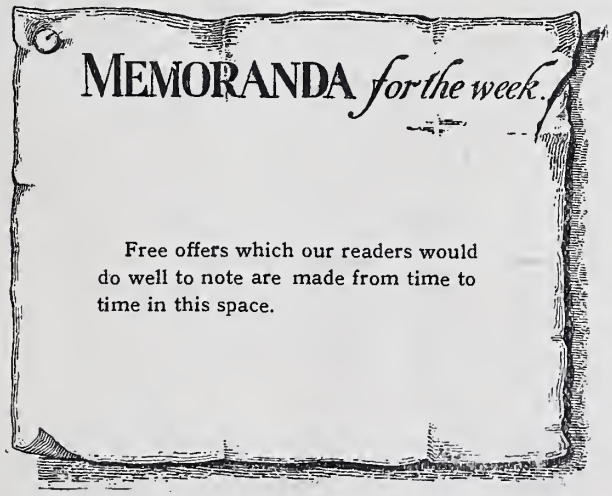
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The Evening Use of Daylight Enlargers.

The daylight enlarger can be used at night with magnesium ribbon, or with incandescent gas: exposures when diffusers are used: are the results as good?: the influence of the light on gradation

ENLARGING is one of the principal forms of photography undertaken by the amateur in the autumn and winter months, and it is therefore unfortunate that the most popular and certainly the cheapest form of enlarging apparatus is that known as the "daylight enlarger," the very name of which suggests that it is unsuitable for use during a winter evening. As a matter of fact very good enlargements can be made, and plenty no doubt are made, in apparatus of this kind, when there is no daylight available; and as pecuniary or other considerations may make it convenient for many of our readers to do their enlarging at night and yet without an enlarging lantern, it will be well if we give a little consideration to the subject now, when the enlarging season is opening. The daylight enlarger depends upon diffused light for the even illumination of the negative, and is made for the powerful diffused light of day, so that the problem before the photographer is how to get some artificial light which is both powerful and diffused.



The Use of Magnesium Ribbon.

Magnesium occurs as a possible substance to use; not the powder, as with it a great deal of the light would no doubt be wasted, and there is no need for anything in the shape of a sudden flash. But magnesium ribbon is a cheap and manageable illuminant, and many have found it practicable to make enlargements by its means.

A diffuser of some kind is necessary, and as most forms of daylight enlarging apparatus have a lens with a comparatively small stop, the diffuser must be one which will waste as little of the light as possible. There is nothing better than ground-glass for the purpose. If we look at a piece of burning magnesium ribbon through a piece of ground-glass, we shall find that it is quite easy to locate the position of the flame. Although the ground-glass scatters the light a good deal, still it does not do so sufficiently to enable a single thickness, or even two, to be used for enlarging, just as they are. But if two pieces of ground-glass are looked through—the glasses not being in contact but separated by an inch or more—it will be found that the diffusion is much more perfect, and that, with such a screen interposed between the burning magnesium and the negative, it is quite possible to get an illumination that is sufficiently even for the purpose. The illumination will be found to fall off towards the edges of the glass, so that, if we are to use such a diffuser, the pieces of ground-glass employed should be at least an inch or two larger each way than the negative; but with this precaution such an arrangement becomes quite practical. As two thicknesses of ground-glass stop a great deal more light than one, it would be better to dispense with the second, if that were possible. One photographer we know does so, interposing only a single sheet of ground-glass between negative and magnesium; but to succeed with this the magnesium must be kept moving the whole time, without the slightest intermission, and this is not always easy. Still it can be done.

Incandescent Gas as an Illuminant.

There is another illuminant which can be used, and that is incandescent gas. A similar form of diffuser will be required, if the direct light of the gas burner is to be used; and for daylight enlargers this is preferable, on account of the small aperture in the lenses

usually provided. When the camera itself is being used, with the camera lens as the projecting lens, we can employ f/11 if that lens is a fairly good rectilinear, or if it is an anastigmat f/8 or even f/6. In such a case one of those enlargers which consist of a kind of lantern enclosing one or two incandescent gas lights and a reflector will be found very effective. If the daylight enlarger has a fast lens, this form of illuminant can, of course, be used with it also.

A question that is often put to us is whether the heat from such an arrangement is likely to injure the camera in any way. Now there is a good deal of heat from an incandescent burner, and when two of these are enclosed in a metal box the box will get pretty hot. If the lantern is badly ventilated it may get so hot as to injure the camera that is near it; but there is no reason why this should happen. If the amateur sees to it that the chimneys and the other ventilation holes are clear, and that the camera is not actually in contact with any metal which can get very hot, he is not likely to have trouble.

Exposures—Nothing Out of the Way.

Exposures with diffusers naturally are longer than when a lantern with a condenser is used, but they are not impracticably long. With magnesium ribbon from one foot to five or six will generally be required for enlarging from quarter to whole-plate, and with an incandescent gas burner the exposure may be from ten minutes to half an hour or more. The character of negative, size of the stop, and the speed of the bromide paper all affect the result, so that it is impossible to be more specific, but it will be seen from these figures that at least the exposures are not out of the way.

It may be asked whether these arrangements will give as good enlargements as can be got with a regular enlarging lantern fitted with a condenser, and the reply to such a question is in the affirmative. There is a great deal to be said in favour of the lantern, and to our thinking its greatest merit is that the photographer can stand beside the easel and shade parts of the picture while allowing the exposure of the rest to continue, and in this way can secure a very considerable control over the result. This can to some slight extent be done, even with a daylight enlarger, by shading the negative; but it is not easy to do, and one cannot see so well what is being done.

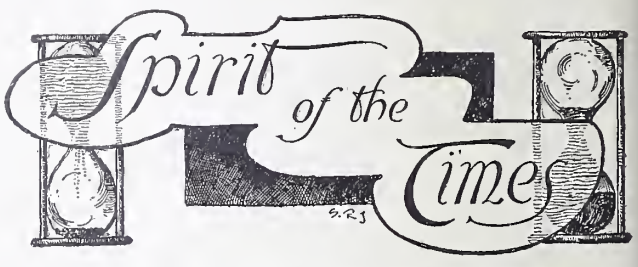
No Difference in "Quality."

As far as any mere technical "quality" is concerned, it is not at all likely that there would be any perceptible difference between enlargements made in the one way and those made in the other. If two enlargements were being made on smooth or glossy paper, with the idea of getting the very utmost possible in the way of definition, then the superiority will be found to rest with the apparatus which employs a condenser. If also it is fitted with electric arc, this superiority of definition will be still more marked. But this is not a matter in which the most rooted opponent of the "fuzzy school" need find cause for dissatisfaction. The difference is so slight that on the ordinary matt papers used for enlarging it would be quite imperceptible, and may well be ignored.

Gradation as Affected by the Light.

There is another point, however, to which some reference should be made, and that is that it has long been recognised by professional enlargers and others who do work of that kind on a large scale that the illuminant plays a considerable part in determining the character of the gradation. With soft, thin negatives, such as those which give the best prints on gaslight papers, these methods with diffusers tend to give pluckier and brighter enlargements than those obtained with a condenser. Negatives which are to be enlarged in this way therefore should not be overdeveloped. On the other hand, negatives which are very vigorous in themselves give the softest enlargements when the light in the enlarger is of the most powerful description, and when a condenser is employed. The amateur, therefore, who has negatives of this kind will find that, if he is to enlarge them at all with a diffuser, he will have to employ the Sterry process, if he is to get good gradation throughout.

R. C. B.



The monthly competitions will close on Saturday next, October 30th. Full particulars of the rules and prizes will be found on page xxii. amongst the advertisements this week.

Shaw and the Camera.

With admirable business acumen, "The Linked Ring" secured Mr. Bernard Shaw on Monday night last to perform on the self-same spot where Mr. Churcher only a few evenings before had given his famous painter's price list. The attendance was good, though it was quite clear that the majority were not photographers; but were attracted by the reputation of the lecturer. We are compelled so to term him; for the combined originality of G.B.S. and of the Linked Ring could not break away from the precedents of a chairman, a discussion, and even votes of thanks. Closing our eyes we could almost fancy ourselves in Russell Square listening to Dr. Mees. In fact, when the Chairman invited discussion and tried in vain to induce someone to say something more than that "I am sure we are all very much indebted to Mr. Shaw," etc., etc., the resemblance to Russell Square became still more striking. We have given our readers an exceptionally full report of what was certainly an intensely interesting—a brilliant address. Shaw is not merely a talker on photography, but a doer also. He has been an amateur photographer for several years; he has even done autochromes. He had much to say of Coburn, and spoke in very complimentary terms of his latest work, the beautiful "London" volume, which we hope to review in an early issue; so that we thought we could not do better than supplement our report of his discourse with a couple of portraits, one of Shaw by Coburn and the other of Coburn by Shaw, and this Mr. Coburn has very kindly enabled us to do.

MISPLACED ENERGY.

Timms is a typist, and up in the City
Hammers a keyboard best part of the day.
Often he'll tell you, in deepest self-pity,
How he is tapping his nerves all away.
Says that his boss is a hard-hearted sinner,
Swears that such sweating is worse than a crime. . .
Wait till you see him one night, after dinner,
Hammering bromoils for hours at a time!

Brown's an accountant, and juggles with figures.
Often he says they will drive him insane.
Tells you his labour is worse than a nigger's,
Groans that he cannot put up with the strain.
If you knew Brown (which his Christian name's Bobby),
You would perceive that he talks through his hat. . .
Brown studies optics by way of a hobby.
Talk about figures and strain after that!

Smith's a contractor, and also my neighbour.
Terrible pessimist—grumbles a deal.
Often complains that a fortnight of labour
Fails to procure him the price of a meal.
Trade may be bad, but his pictures are splendid.
What is the reason? I happen to know.
Limitless patience Smith's often expended,
Simply to make a good print for a show.

Johnson's an ass—yet can turn out a poem
Equal to any that ever I read.
Don't talk to him about Shakespeare—he'd show him,
Only that Shakespeare's unhappily dead.
Indolent chap—yet his energy's ample
When there are rhymes that refuse to agree.
If you are anxious to look at a sample
Here you have got it—

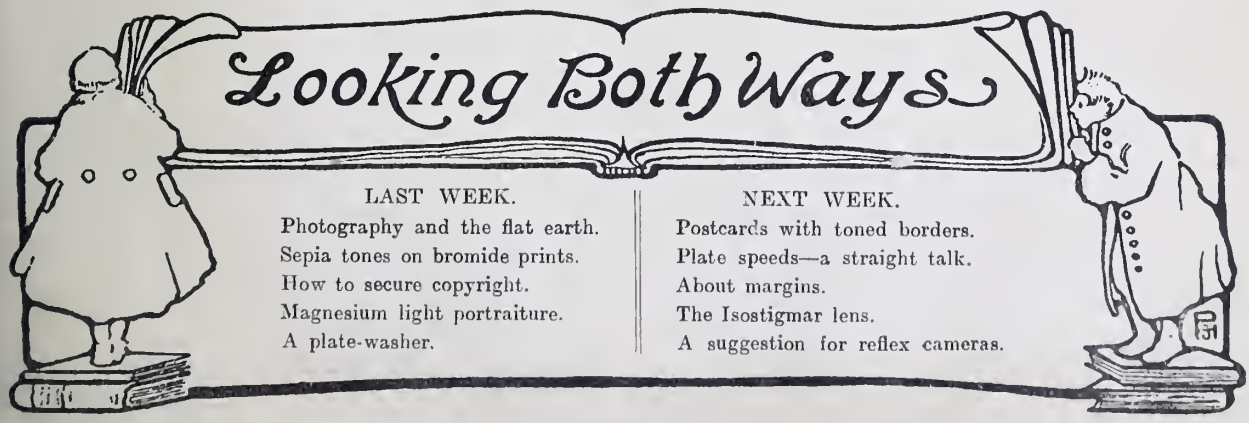
For Johnson is Me.

Permits to Photograph.

An article on this subject in "The Times" last week dealt at some length with the anomalies that are to be found in the regulations for photographing in public places, and pointed out that, in spite of the reputation which some European countries possess of being bureaucratic, there were very few where photography was subjected to such needless restraint as in Great Britain. It may be news to our readers that, although an amateur may obtain a permit to photograph in one of the London parks, he will not be allowed to include any of his friends in the picture. Quite recently, a gentleman was interfered with by the police for attempting to make a snapshot of some friends of his who had stopped in their carriage for the purpose. The excuse for this ridiculous regulation is that, without it, the authorities would be unable to prevent the "just as you are for ninepence" man from pursuing his harmless avocation. It is something like the regulation which excluded an electric brougham because petrol motors were undesirable, and our ædiles could not tell the difference between a petrol and an electric motor. The sooner the photographic restrictions in this country are relaxed until they come into line with those on the Continent the better; and the "Affiliation" can hardly engage in a better work than that of endeavouring to get needless hindrances removed. And in doing this we hope the affiliation authorities will take a wider view than that which rests satisfied with the Red Book as a permit. The Red Book is well enough, but it is better still when neither Red Book nor any other formal permission is required before an amateur photographer may take a photograph, the taking of which cannot cause any possible harm or annoyance to anyone.

The "Kew Test."

Although it is well known that the Kew Observatory, or, to give it its correct title, "The National Physical Laboratory, Teddington," is prepared for a small fee to test and report upon photographic lenses, the number of such instruments that are submitted is an extraordinarily small one—something less than three dozen per annum, all told. The fee, small as it is, still bears a considerable proportion to the prime cost of the lens; and the laboratory authorities, recognising that, announce that they have under consideration a proposal which will enable a sufficiently critical examination to be carried out for a much reduced fee. In the annual report we note also that shutters have been sent to Teddington to be tested, and that a new method of doing this has been devised, which has given good results with exposures up to the two-hundredth part of a second. It is hoped that the apparatus may shortly be erected in a permanent form for use at the institution. The method in question depends upon the photography of a small spot of light which is made to execute vibrations of a known frequency, which may be as high as four thousand per second. It is to be hoped that, whatever shutter testing arrangement is finally adopted, it will deal not only with the duration of the exposure, but also with the efficiency of the shutter, since from the point of view of the user, the latter is at least as important as the former.



Bernard Shaw Improvises on Photography.

A Novel Entertainment at the Photographic Salon.

Specially Reported for "Photography and Focus."

"Photography will not compete severely with painting. Photography is so much more troublesome and so much more difficult than the work of the ordinary artist."

* * *

"If you want to play a particular trick with a portrait you must do it in the ordinary Royal Academician way."

* * *

"Photography has only come into popularity by destroying all its truthful qualities."

* * *

"The general work of the retoucher is to turn the photograph into something that the original can stand; and the first condition of that is that it shall be entirely unlike him."

"A little observation and conference with painters has shown me that many of them have a real hatred for photography. It is an interesting psychological phenomenon."

* * *

"At the present time one of the great defects about painting is that none of our painters know how to paint."

* * *

"Human nature calls for change. After habitually practising virtue, one comes at last to long for vice, and *vice versa*. Of course, we should be neither virtuous nor vicious."

* * *

"There has been enough toleration of the impressionist school. It is beginning to be found out."

"Incompetent daubers like Reynolds."

* * *

"Include some photographs by men who are famous. I can let you have bushels I have taken myself."

* * *

"People have even got the debased idea that black and white alone is respectable. It was supposed to be symbolic, and it was so. One development of the tendency was the giving of broad white mounts to their pictures."

* * *

"That most disgusting century of all, the nineteenth."

* * *

"The love of colour was a passion, and people had developed a sort of fear of their passions."

A CROWD assembled on Monday evening, the 18th inst., at the Photographic Salon, to hear Mr. Bernard Shaw "improvise upon photography," and for an hour and a half, in characteristic fashion, he wandered at large over the subjects of photography, morals, and painting and its allied arts. "G. B. S.," whatever he may say, is a Conformist, and on this occasion he had donned the prosaic evening dress, and not even the red tie, beloved of Socialist and of the South Western Railway staff, marred the black and white of his raiment.

At the outset he was not quite sure that he was not addressing his audience under false pretences, but as an apology he said that he did, as a matter of fact, know something about photography. He had taken photographs. He said that much because there was still an impression that the peculiar interest attaching to his utterances on art was due to the fact that he knew nothing about it. What he had to say on the subject of photography had already been given to the world years ago, and it occupied about two pages in print. He disliked repeating himself, except in politics, where it was very necessary With regard to photography and painting, he found very much the same need as there was in present-day politics. People needed to be

Put Right upon the Simplest Matters.

All the objections that had been made to photography were applied in their day to other graphic arts; and they applied with greater force to painting and drawing than they did to photography. There was the mechanical argument, of course, which he had disposed of previously, and he did not feel disposed to dispose of it again. He did not think there was much fear of painting and drawing being superseded by photography.

The only processes of the real artist which were more tedious and much longer than photography were the processes of the oil painter. Oil painting was an extraordinarily difficult thing, and photography was not coming into severe competition with it, at any rate for the present, *i.e.*, if we took the ordinary work of a really skilled artist in photography. One of the reasons of this was that photography was so much more troublesome and so much more difficult than the work of the ordinary artist.

At the far end of the room was a collection of photographs by an artist named D. O. Hill, to which he would refer them as confirming what he had said. Hill had produced those photographs within a comparatively short period of his life, but he found out that it was more difficult for him to work at this process of photography after having trained himself to do it than to do the ordinary drawing and painting business; and so he went back to painting, not in the least because it was necessarily more artistic, but because photography was more troublesome. The fact is we do not realise how quickly a highly trained artist can work. Of course, the duffer would be equally unsuccessful whether in painting and drawing or in photography; the man who is really born with a gift which he has cultivated to the utmost was what he referred to. To a duffer, photography had no attractions.

Take the work of Mr. Strang, a very able draughtsman. Mr. Strang made his (Mr. Bernard Shaw's) portrait in the most difficult sort of draughtsmanship of all. Mr. Strang did not take a pencil and paper, or brush and canvas, but he put on an easel a large sheet of copper and drew his portrait straight on the copper with a hard point—not on a waxed surface spread over the copper, but with a sharp tool on the naked copper itself. There you had one of the most difficult feats that could be achieved by a draughtsman, in the most difficult material. And he had that finished in a shorter time than Mr. Coburn would have finished a photograph. And Coburn's work showed more finish than that of other photographers. People had a notion that photography was easy. What he had said showed what an appalling amount of ignorance existed in the minds of the public as to the amount of technique necessary to produce work such as Mr. Coburn had done.

He next took up the work of Sir Edward Burne Jones, who really put a great deal of routine draughtsmanship into his drawing and painting, especially in his designs for windows. The point he wished to emphasise was that had Sir E. Burne Jones been a photographer, and devoted the same pains to the photographic art, he would not have produced relatively such great results. If Sir Edward had, for instance, spoilt a plate, he would have spent a great deal of time in getting that plate right instead of undertaking the business of making another; it was less trouble to do that. Of course,

it would be understood that he was speaking of artists who were genuine born artists, gifted draughtsmen who knew their business.

Mr. Shaw had no doubt himself that the simplicity of the old-fashioned process of drawing beat photography altogether. He did not mean to say that the expert photographer could not get his processes through in the time that an artist took to draw a picture, no doubt he could very often. But it was his conviction that if anyone had a faculty for drawing, without which it was not worth while becoming a draughtsman, but if born with a fair endowment of that, and if it was cultivated to the utmost, then such an one would never take up photography unless he took it up for the sake of its beauties.

Many people were under the impression (quite a mistaken one) that photography could not improve on nature. A photographer could really do much more in that way than an artist could by the ordinary drawing process. There were certain departments of art that remained outside the scope of the photographer at present. For instance, if you wanted to make a moral picture, or a didactic picture, it was necessary to invent the whole thing yourself, as Raphael did in his cartoons. The process of photography is out of place there. Somehow or other photography is very stern; there is a

Terrible Truthfulness about Photography

that sometimes makes a thing ridiculous. Take the case of the ordinary Academician. He gets hold of a pretty model, he puts a dress on her, and he paints her as well as he can, and calls her "Juliet," and puts a nice verse from Shakespeare underneath, and puts the picture in the Gallery. It is admired beyond measure. The photographer finds the same pretty girl; he dresses her up and photographs her, and calls her "Juliet," but somehow it is no good—it is still Miss Wilkins, the model. It is too true to be Juliet. There is a whole quantity of truth about it. The painter leaves out almost the whole of the essentially truthful part of the thing. He looks at the girl, but does not see much of her; he paints the Julietty part of her. But the camera sees everything in the most provoking way, and although the photographer may begin to blot out whatever is not Juliet, he may fake his plate, but when he has gone through all that it is still not Juliet. It is one thing not to see truth, and not to know that you are leaving it out; it is another thing altogether to go and deliberately falsify what you have. If you want to play a particular trick with a portrait you must do it in the ordinary Royal Academician way.

We now come to what is really the unbearable truthfulness about photography. How many people have been confronted with real photographs of themselves? It is one of the exceedingly unpleasant experiences of life. (Laughter.) He distinctly remembered on one occasion many years ago, when he was younger and better looking than now, being in a certain house in Ashley Gardens. He was walking across what appeared to be a large spacious hall, when he saw

An Extremely Disagreeable Looking Man

approaching him. He turned aside to give him a wide berth. The disagreeable man turned also, and then it dawned on him that he was walking towards a looking-glass, and the disagreeable person he saw was none other than a reflection of himself. He still remembered the curious shock this experience gave him. He did not recognise himself; he did not see his own genuine self there; it was not a genuine representation of himself. He only saw his own exterior, and he did not think that his exterior was worthy of his genius. It was a curious fact that we none of us liked to see a true representation of our corruptible bodies. This corruptible is not the real thing at all; it is only the thing which will in a short time be done with, thrown aside, and scrapped, whereas the inward thing, the most vital thing, our real self, will go on living after we have done with the outward thing. In a representation of yourself you would like to see that real self.

Mr. Hay Cameron once showed him what he described

A Portrait taken by Bernard Shaw.



Portrait of Alvin Langdon Coburn.

as a most excellent negative he had just taken; it was of an old military officer, and it was a very striking portrait, quite untouched. It was a really very interesting face with all the natural lines on it. He showed this negative to the original of it. "What!" exclaimed the military gentleman, "do you mean to tell me that I have got two black lines down my face like that?" Mr. Cameron sought to sooth his rage, and remarked in his most affable manner: "Those lines are the history of your life." Whereupon the old gentleman assaulted him. (Laughter.) He simply would not have it.

You will see if you look round all the professional photographic places that photography has only come into popularity by destroying all its truthful qualities.

The real part of the work, if he might venture to suggest to them what he thought, was the modelling of the face. What was wanted was a little more modelling of the face. This was the work of the retoucher, who as a rule took all the modelling out of the head and face, and made the face resemble the surface of a visiting card for smoothness. The general work of the retoucher was to turn the photograph into something that the original could stand, something that he would be pleased with; and the first condition was that it should be entirely unlike the person it was supposed to represent. It was very amusing to hear the remarks of persons on such results. "The portrait is really quite lifelike"; "the camera gives you the exact truth"; "the camera cannot lie," and so forth. As a matter of fact (thundered the lecturer),

The Camera can Lie,

and it does so most scandalously. The retoucher turns out the most absolute falsehoods in portraiture.

The thing that had to be remembered was the real antipathy in human nature to the truth. Photography goes against that, and the retoucher had to accommodate it to this feeling of resentment against the truth. He really believed that was at the bottom of the sort of feeling which many artists had of repulsion against photography. A little observation and conference with these people would show that many of them have a

Real Hatred of Photography.

This was an interesting psychological phenomenon. Photography is too uncompromising. And so it has to be faked. It lands the photographer into this position—that, instead of producing something that is a true representation, he produces something false, by not putting in the truth. It brings the photographer to the point of saying: "There is the truth, blot it out if you dare. Many photographers have developed considerable nerve in that direction. Many of these men have become corrupted by art." What they are trying to do is to produce a clever imitation of a picture.

There is nothing more extraordinary than this drifting of photography. Art and photography have of late years been influencing one another. Although they do not reflect the current art of the day, many modern artists have taken to photography as an art, and many of the less original photographers are producing less original work. But there is a most curious connection between the photographic world and the outside art world. The French photographer, Demachy, has thoroughly imbibed the old school idea that a photograph cannot be in itself a work of art. That view was adopted by the "British Journal of Photography." He read the "British Journal of Photography," and thought it an excellent trade paper—one of the best trade journals in the country. But it took that view, so much so that when anyone said that photography was an art, that journal lost its temper and snubbed the people who said so.



Bernard Shaw. A Portrait by Coburn.

He advocated an historical exhibition of photography, which would show the evolution of the art from its discovery until the present day. The history of photography had been an evolution, as had that of painting. In reviewing the history of painting he was excessively severe on present-day artists. At the present time one of the great defects about painting was that none of our painters knew how to paint. He explained that by this criticism he meant that they had not learned after the manner of an apprentice how to put paint on to canvas. He thought they could take a useful lesson from the carriage painter, whose work was really excellent from the technical point of view. Present-day artists were all hopeless duffers in handling their materials, as compared with early artists, who had mastered the use of

materials. He drew a comparison between painting and photography. Photography as he remembered its early days in this country really began with men who were tradesmen, who were despised by many of the modern school.

In days gone by photographers used to exhibit their negatives as well as their prints. Those who have had some experience know that when you got a really perfect negative you got something which made a bad print. The negatives which made the best prints were really horrible things. He visited Mr. Evans one day, and found him with a dirty mess in his hands, which looked like the bottom of a green glass bottle. Mr. Evans said it was a magnificent negative, and he showed a print from it, which (it goes without saying) was superb. Mr. Evans told him it only took five days to print an impression from it—that is, provided you had a good sun and kept it on the top of the house the whole time. This negative would not have gained a medal, but it was a much better one to get a print from than many of which they were so proud.

Then silver prints became all the rage. People delighted in the beautiful process of printing on silver paper; they would have nothing but that. It was one of the triumphs of photography. By its means they used to do the oddest things. They produced combinations in printing that were perfectly startling. Things could be stuck into the landscape; figures would be seen which, according to the scale of the landscape, were at least 17 feet high. This sort of thing we could excuse in the drawings of Du Maurier; but were rather down on it when put into a serious photograph. There was no excuse for such things, and in process of time they began to produce a reaction; people began to get tired of that sort of perfection. It was a

Very Serious Moral Question.

Rational, responsible human beings should not be practising vices so flagrant. The law of change comes in. Human nature was so perverse that it called for change. After practising virtue it longed for something bad. In process of time somebody came along in photography with oilshop lampblack and gum, and printed with this, and people thought the effect looked rather artistic somehow.

The same thing occurred in the other graphic arts, as, for instance, in etching. There was a perfect rage for etchings a few years ago—not good etchings, just etchings; big etchings, reproductions of big pictures. They were run after simply because they were masses of scratches and black patches. People liked them, and they talked about them, because of Rembrandt. They liked the bad things as much as the good. Rembrandt realised that his skies were bad. He gave them up. But these people, they liked his skies as much as the faces and the fingers. In the same way photography suffered. The more gum and oilshop black there was in the photograph the better people liked it. The sootier it was the more it was prized. He thought what really got admission for these things was the discovery that a great many photographs would be greatly improved if they were only taken by lenses which had some sort of relation to the human eye.

If you went to some manufacturers of lenses you could pay as much as £40 for a lens, as he had, and then found he could not use it, as it gave him so much more than the eye did. By these very expensive lenses great detail was possible in photographs, but then, you did not want to see all that great detail, that high finish. Too much detail was given; you could almost see the pores of the skin. In these circumstances amateur photographers took photographs which some people began to discover were better than the photographs of the old school, because they were less perfect in detail. This gave a turn to the art and many began to take photographs recklessly, and impressionism in photography grew up. And now there has been enough toleration of this impressionist school, and it is beginning to be found out.

The work found in some of the exhibitions ought never to have been shown as good work. He thought also that photographers would have to take seriously the more difficult processes of printing. The comparatively simple and safe processes might be left to amateurs. A great deal more in silver printing should be done. People seemed to be content to put up with the mildew effects produced.

He was not sure whether real artists would not have to begin to make their own printing papers. The trade did not supply what was wanted. In order to get real good work you had to do the thing in a very long way round fashion, and it did not seem to pay the large manufacturing firms to make the sort of photographic film that was needed to give a very large scale of gradation. Commercial photography could not afford to deal in the negatives which Mr. Evans contemplates for his five days' printing. But Mr. Evans was not like the rest of us; he did not have to consider money.

The successor to the gum process was the oil process, and very wonderful and terrible are some of the results.

People began to Love Oil.

At the New Gallery could be seen one or two good oil prints. They were very good; and the process has very considerable artistic capabilities. Mr. Coburn had done the right thing in breaking away from the old printing process, of which he really became a consummate master. Mr. Coburn had come across the economic difficulty.

People had an idea that they could get good photography cheap; but that was out of the question, considering that a photograph takes much longer to do than a drawing. He himself possessed a drawing of Mr. Granville Barker, done by Mr. Sargent, who polished it off in two sittings with great ease. Mr. Coburn could not compete with that, and yet, if photographers were to ask the fees that an artist demanded, and got, for his work, the photographer would be considered a lunatic. If they were dependent on their art they could not live by it. Mr. Coburn really solved the difficulty. He saw the difficulty of making a living by those platinotype prints, and he turned to photogravure. The old copperplate process prints for ordinary decoration of rooms had disappeared. When Mr. Coburn took to photogravure he did not put on a velvet coat, but went to a trade school and worked at it in a trade way. He began

To Produce Weird Little Things,

but finally, after going through an apprenticeship, he is master of the subject of photogravure. There was a great future for this kind of print, you could hardly tell it from a platinum. That is the latest development of the photographic art. It would be interesting to ask Mr. Coburn whether in giving up the old process, he has sacrificed any of its good qualities. If this departure is going to succeed, the original plates would not have to be over-exposed, and there would be an enormously high quality of tradesman's work required in the production of the finished article.

He hoped the Linked Ring would turn over his suggestion and try and get a sort of historical exhibition on the lines he had indicated. Let them begin with the photographs of the late D. O. Hill, who he thought had been a little over-praised. The work of Mrs. Cameron might also be shown, and so on in that direction. Give an exhibition of "Daguerreotypes," get a lot of old silver prints, and some first gum prints; after that some of Mr. Evans's platinum prints; then some modern oil prints, and then Mr. Coburn's photogravures. It would perhaps be too much to get alongside this collection a series of old paintings too, beginning with Van Eyck, going on to the 16th century, and then coming on to the incompetent daubers like Reynolds, bringing in Gainsborough and Mulready. In this way you would get a really intelligently arranged exhibition.

Then get an intelligent lecturer to point out what the public ought to see in all these, not forgetting to arrange in the middle of your rooms some lenses. Include also some photographs taken by men who are famous. Ruskin and Rosetti took a lot of photographs which no doubt could be secured. Mr. Shaw caused a titter by adding that he, too, would lend them some of his, for he had bushels at home. By these means it might be possible to rally an interest in photography, which he was sorry to see was on the decline.

He desired them not to let the catalogue of the proposed exhibition be prefaced by any remarks by Dr. Johnson on art. All true art was eccentric. It was bound to be. An artist must have an individuality. Most people were fairly normal, say not more than one per cent. abnormal. What was required for an artist was a greater percentage of abnormality.

The Discussion.

The Chairman (Mr. R. W. Craigie) called on Mr. Warburg to speak, but this gentleman said he had been so bewildered by Mr. Shaw that he would prefer to be excused.

Mr. F. H. Evans described the lecture as a good piece of log rolling. He would like to emphasise the necessity of technique in photographic art. A man in any art or craft must learn to use his tools before he could do good work. As regards his negative which took five days to print, he had no remembrance of it, but he supposed it was so if Mr. Shaw said it. He thought the lecturer was hopelessly wrong in many of his statements, but he would not dispute with him in public.

Mr. Coburn being called upon, said he thought quite sufficient had been said about him already by Mr. Shaw.

Mr. F. C. Tilney said it struck him all through the delightful discourse they had listened to that evening that friends and members of the Linked Ring had been nursing a serpent in their bosom. (Laughter.) Every word of real serious criticism in the lecture he entirely endorsed.

Miss Agnes Warburg protested against the idea that the value of a work of art was to be estimated by the number of hours spent upon its production.

Mr. Shaw's reply amounted substantially to a second edition of the lecture; indeed, the Chairman expressed the opinion that the lecturer was in better form at this stage of the evening's proceedings than at the beginning. Mr. Shaw even excelled himself when under the stimulus of discussion and questionings. People in these degenerate days, he said, have lost their love of colour, and they did this the more as they became more wicked, and sordid, and poverty stricken in spirit. They had even got the debased idea that black and white alone was respectable. It reflected a state of the soul; it was a psychological question. People had developed a sort of fear of their own passions. The love of colour was a passion. This black and white business was perfectly disgusting. It was supposed to be symbolic, and it was so. One development of the evil tendency was in giving broad white mounts to their pictures, which resembled the collars and cuffs and expansive shirt front of a man's evening dress. He would tear away the whole lot as abominations.

Salon Notes. *By "One-Who-Was-There."*

1. Monday, October 18th, 1909, will be inscribed—or rather photogravured—in letters of flame in the annals of the Linked Ring.

2. For years we have been drifting, drifting, unable to make the magic land, but now at last we have come to Shaw.

3. Coburn is god, Shaw is his prophet, and Frederick Evans accompanies on the pianola. [Advt. Salon Reform means more portraits of Shaw.]

4. Gone are the "gums" and past are all processes in oil. To-morrow we tuck up our green flannel shirt sleeves and learn to make photogravures at 2d. the square inch—only 1,000 impressions taken [Advt. Salon Reform means "trade finish."]

5. We will have no more aristocratic acres of white mount. Let us frame right up to the print—over the print. Let us even put the frame in the middle of the print. But "marginal dressing" must go. [Advt. Salon Reform means less collars and cuffs.]

6. We mean to elect as "honorary Link" that unnamed Scot who flung his embossed oil painting to the floor and begged Shaw to jump on it—no sentimental nonsense about viewing it through half-closed eyelids, but to jump on it. That is THE test!

7. Exhibitors, prepare! Next year our notorious selection committee will adopt this test. Mr. Warburg, massively booted and spurred, will be asked to do the jumping. (But why wait till next year? There's the present show!—Editor.)

Draping the Sitter. *The Best Material.*

THE material for draping the sitter when figure work is in hand is very important, and both its nature or character, and its colour have to be taken into consideration. The photographer who has not had any experience of this work may use some thin white, perfectly diaphanous material, when the contours of the flesh beneath are to show through it, but the camera may render this as little more than a white opaque mass with the flesh tones underneath quite lost. It is necessary, therefore, if these flesh tones are to be preserved, to employ some darker fabric.

The texture of the material should be such that it falls readily into smooth folds. A soft woollen material, merino, cashmere, or fine flannel is very suitable. Indian muslin, chiffon, and nun's veiling answer very well. Whatever is used must be free from anything like a pronounced pattern, or, indeed, any pattern at all; and its mesh should be fine enough not to attract attention.

If the material has been found that is suitable in other respects, but is white, it may be dyed. For this purpose nothing is better than a strong decoction of coffee in which the fabric may be soaked, and then rinsed and dried. It is surprising how much more easy it is to get the flesh tones right when the drapery is not quite white than when the opposite is the case.

Messrs. Marion and Co.'s Christmas Mounts for 1909.

ONE of the first in the field of photographic mount-making was the firm of Marion, and to-day the Soho Square house is still in the forefront of that manufacture. Every year we receive from Messrs. Marion and Co. a collection of samples of mounts specially made for Christmas and New Year cards, and every year we note amongst them many of great effectiveness.

This year the specimens are as varied and pleasing as ever. Where there are so many that are pleasing it is difficult to single out one or two for special mention; but amongst those which took our attention was a light green card with rough edges, with a white card inside, making an upright booklet in which can be pasted a midget print. This, which is known as R 12, sells at 1s. 6d. per dozen. Another attractive one is R 30, a quarter-plate paste-on mount, consisting externally of a dark brown card, with a little white decoration in relief, and internally of a single slate-coloured card with a plate mark. This is priced at 2s. 2d. per dozen.

There are also a number of calendars in two-colour veneer, made to take a "slip-in" photograph, and the list includes adhesive mottoes for attaching to any photographic mount.



THE PILLARS OF ST. MARK. BY JOHN M. KNAPP.

The original of this picture is No. 13 at the Exhibition of the Royal Photographic Society.



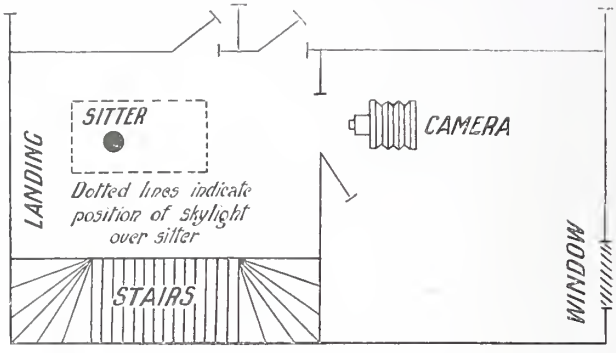
Home Portraiture.

A Note on the Use of a Top Light.

By Richard Penlake. Special to "Photography and Focus."



EXPERTS are fond of telling us to avoid a strong top light in portraiture. Writers of text books and of articles in the press appear to be almost unanimous upon this subject, and the beginner may well be forgiven if in his anxiety to improve he takes all these opinions as gospel. One is instructed, for example, that when a portrait is being taken out of doors an open umbrella should be held over the head, or some similar means adopted for subduing the excessive top light. On the other hand, we occasionally read that when portraits are being taken indoors, it is advantageous to fix a large sheet of white card over the sitter's head, at an angle of 45° or thereabouts, in order to obtain a little light on the top of the head. Obviously, then, *some* light from above is necessary.



Although a strong direct top light at times has been so severely condemned, some of the best workers have not hesitated to use it in order to get the effect that is desired. One of the best known of top light effects in portraiture is the beautiful and well-known "Zuleika," by W. Crooke, a reproduction of which is to be found in "The Complete Photographer."



It was my admiration for this and for other pictures taken under similar conditions of lighting that tempted me, on the suggestion of an article by Mr. Bond which appeared in *Photography* some eighteen months ago, to see what effects I could get underneath a skylight which illuminated the landing on the top floor of my humble "Englishman's Home," a skylight about which I had hitherto thought very little, except on stormy nights when the rain came in, or on hot nights when bats entered thereat. Now, however, after finding how useful it is for "effects," I look upon it as one of the best things a jerry builder ever jerry built.

An immense flood of light comes through it on bright days. Probably there are many like it, or at any rate somewhat similar, in the homes of the readers of this note. I have known windows in the roofs of attics to give what was practically the same kind of light, so that those who do not happen to have a skylight over a landing, as I have, may possibly have a window in the roof of an attic which may be used.

I give here a rough plan of the landing, which almost speaks for itself, and a couple of examples of work done there. The sitter was placed on the landing itself, as shown in the diagram above, directly underneath the skylight, which is indicated by the dotted rectangle.

As I always use the longest focus lens I can get for portraiture, I found the landing far too confined, but happily there was a room in which I could place the camera and point the lens through the door, and so get the image of the model the right size upon the plate.

The placing of the camera in such a position also prevented the light from the skylight from straying into the camera, as would have been the case had I placed the camera on the landing. Had the window in the room occupied by the camera been immediately behind the latter, it would have served as a secondary and helping light, but being placed as it was, the light from it did not assist the shadows

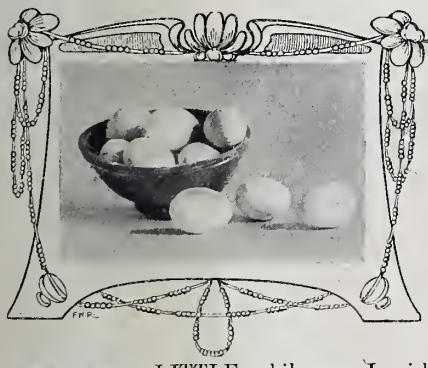
in the slightest, being stopped by the wall and the door, as can be seen on reference to the plan, so that reflectors of some kind became a necessity to soften the shadows. The reflectors in this case took the shape of sheets of white cardboard. These pieces of card were laid on the floor, so as to catch the light from above and reflect it upwards. Unless reflectors of some description are employed, the shadows are sure to be a good deal too strong. As the area of the landing is small, the walls are comparatively near the sitter, and a very light paper on them would increase the usefulness of the place for portraiture.

I was greatly surprised at the large number of different effects which could so easily be obtained in such a small place—not large enough to swing round the proverbial cat, or even a kitten—and with such a strong top light. The position of the chair on which the sitter was placed (a movement of only a few inches made a remarkable difference), the pose of the head, the height of the camera, and the number and position of the reflecting cards, allowed a wonderful diversity. Using an anastigmat lens working at f/6, and a Zenith plate backed, I found five seconds exposure ample.



I must confess that I obtained some fearful and wonderful results when I commenced using the top light, and caused no little trouble in the home; but thanks to perseverance, to say nothing of the remarkable patience and forgiving nature of my sitters, I at last got something to satisfy both myself and my models. Two of the results obtained with the exact arrangement given in the diagram are reproduced on this and the previous page, and will serve to show the kind of effect which can be got with this simple arrangement.

I have obtained almost the same effect with the same model in an ordinary room by using only the top part of a window and reflecting the light downwards, but I have come to the conclusion that the skylight is better. The use of such a window opens up quite a wide field for work, and a skylight which has hitherto been looked down upon—or rather up to—as useless for photography, may, if properly used, become one of the most useful windows in the house.



Practical Hints on Making Carbon Tissue.

BY A. E. BAWTREE. *Special to "Photography and Focus."*

Telling how to make carbon tissue at home, in small quantities, for those who want some exact shade, for colour work or some similar purpose.

A LITTLE while ago I wished to obtain some carbon tissues of very exact shades of colour for some experimental work in colour photography in which I was engaged, and as none of the large firms could supply these from stock, nor would make them to order except in far larger quantity than I required, I was consequently driven to consider the question of tissue making at home.

I did not like the idea, for two reasons. It looked as if it would be very troublesome and uncertain, and I could find no really practical instructions for the work. The jelly is so sticky and sets so quickly that it presents difficulties over which the writers of text books cannot or will not help their readers. One of the least satisfactory methods of coating the tissue is taken from a cutting from an old number of some photographic journal, and recommends spreading the jelly while liquid on glass coated with oxgall, rubbing down damp paper upon it when set, and pulling off the paper and coating together.

However, after some experimenting I arrived at the very simple and satisfactory method that is here described.

Seven hundred and fifty grains of good gelatine are soaked in eight ounces of cold water. Three hundred grains of lump sugar are added, and the mixture is melted by standing the vessel in which it is made (a pint jug) in a saucepan of hot water. The pigments can be procured from Messrs. Reeves and Sons, Ltd., of Dalston, London, N.E., in the form of tubes of "Students' Water Colours," each tube containing, nominally, half a pound, and costing 1s. 8d. each. They are made in forty-one colours, and a chart of these can be had on application. I do not know whether all the colours are suitable for the purpose; some might render the gelatine insoluble, but this could only be found by experiment. Some of the colours appear to be mixed with glycerine or something else which prevents the tissue from drying. If these are used, this can easily be removed by washing the tissue, directly it is set, in two changes of water for one minute each, or, after it has dried as much as it will dry, in two changes of five and two minutes duration respectively.

For dead matt tissue a quantity of colour about equal to the contents of one tube will be required, or for tissue with a full gloss about half this quantity. Here, also, it is well to point out that the quantity of the pigment that is needed will vary somewhat with different colours, and can only be found by experiment.

The colour is mixed up thoroughly on a piece of glass with a putty knife, which will be found much more convenient in shape than a palette knife. A paint brush is dipped in water, touched on the colour, and applied in a thin wash to a piece of paper to form an idea of the shade. The photographic print will be rather brighter than this wash, and a little more black than seems to be quite desirable should therefore be added. No white should be added to the colour, trusting to get pale tints by light printing rather than by lightening the pigment.

When the right shade is obtained, the colour is stirred thoroughly into the jelly with the putty knife, and the mixture is strained into another jug through a piece of muslin which is stretched across the top. The liquid must be kept hot by standing the vessel in water that is very nearly boiling, and in it should be placed a tablespoon that has previously been heated in the water and wiped dry.

How the Coating is Done.

A number of pieces of good tough drawing paper, each nine by seven inches, are placed in a dish of cold water, and a smooth towel or a couple of thicknesses of blotting paper spread upon a level table. Close at hand are put a piece of plate-glass ten by eight inches, a piece of stout sheet zinc of the same size, some blotting paper, a roller squeegee, a domestic zinc bath full of water as hot as the hand can bear it, a Bunsen gas burner at the end of a rubber tube, and an ordinary thin visiting card with its corners rounded.

The plate-glass is put into the hot water, and while it is there one of the wet pieces of drawing paper is put on it, and the two are lifted out together, allowed to drain, and placed paper upwards on the table. The jelly is stirred up with the spoon, and some of the surplus moisture having been removed from the paper with blotting paper and a squeegee, some of the gelatine and pigment is ladled on to it.

After a little practice it will be found that one tablespoonful is sufficient for a piece of paper of the size named, but at first it will be best to use quite half as much again. The quantity of jelly mentioned above makes about sixteen spoonfuls. The mixture is spread over the paper with the card, and the flame of the Bunsen burner is then played over it for a few seconds. This bursts most of the bubbles and helps to spread the layer evenly.

Any large bubbles that are obstinate must be picked out with the card and the flame played over the place. Little bubbles do not matter, as they do not seem to show in the prints, and the less the flame is used the better.

In about a minute the paper may be raised by two corners with the point of a knife, peeled off the glass, and placed on the cold zinc to set thoroughly. This it will do by about the time the next piece has been flamed with the burner, and while this is having its minute's rest the sheet on the zinc may be taken off and pinned up by two adjacent corners to the edge of a shelf to dry. This drying will take from twenty-four to thirty-six hours.

When the coated paper has been removed from the glass, the bulk of the spilled jelly may be scraped from the edges of the latter and returned to the jug which held the unstrained mixture. If enough of this accumulates to make it worth while, it may be remelted, strained, and used. Any smears that remain on the glass, after scraping most of the jelly off, will easily dissolve when it is put back into the hot water.

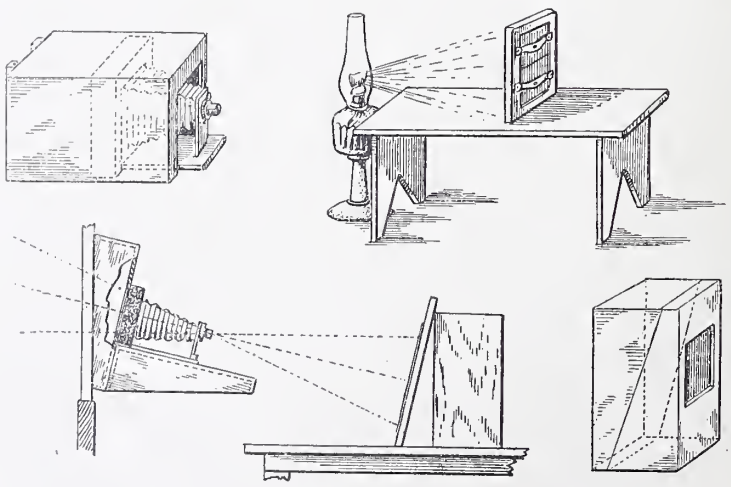
Tissue made in this way may appear to be a little bumpy when dry, but this can all be got rid of, after sensitising it, by squeegeeing it face downwards on to glass, treated with French chalk, and letting it dry thereon in the usual way.



Some Few Workroom Dodges.

By PERCY D. BOOTH. From "Camera Craft."

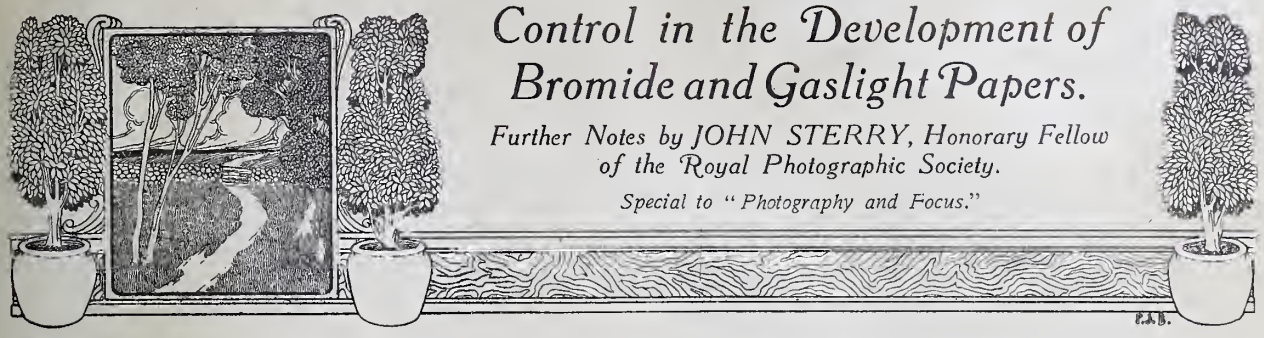
THE first illustration shows a box to put over the camera when its extension is not sufficient for the enlarging to be done. The rear end can be fitted with grooved strips on two sides of an opening just large enough to allow the negatives to slide into place. This will greatly increase the capacity of a short focus camera for enlarging.



The oil sheets that are used in offices for letter copying to keep moisture from going further into the letter book make excellent lining for wooden dishes to be used for fixing, washing, and gold toning. They are even better than oilcloth, as there is no paint to come off, the oil in the cardboard being boiled into the fibre. Developing solutions, however, go through the oil sheets on account of the alkali they contain. I have a dish lined with an oil sheet that I have used for hypo solution for over two years.

A round stick or curtain roller, with one end of a long strip of paper pasted thereon, makes a fine print straightener. Of course, if the prints are large, something of a larger diameter should be used. The paper is unrolled, the small prints slipped in as it is rolled up, and by this process are given a nice backward curve. A bench made of thin deal, as shown in the second illustration, is very handy when doing printing with an oil lamp. It should be made of such a height that the centre of the printing frame will be on a line with the flame of the lamp. One end of the bench is placed against the base of the lamp and a distance from the flame equal to the long side of the plate used is measured. A line is drawn at that place on the bench, and the frame is then always at the same distance, so that exposures can be duplicated exactly. I have all my negatives marked with the number of seconds each requires for printing at the standard distance; always have as full a flame as possible, and consider that the standard. When the flame is not burning well, I can easily move the frame a little closer.

The lower left-hand illustration shows an arrangement for enlarging, particularly adapted for cases in which it is inconvenient to use a mirror to reflect the light from the sky. I am using such an arrangement, and it works admirably. When everything is level and no mirror is used, the result is uneven illumination. The last shows how an ordinary small pine box from the store can be cut so as to give the desired angle. The part containing the hole is fastened to the screen that blocks out the lower part of the window, and the other part is fastened to the box to form the shelf on which the camera rests.



Control in the Development of Bromide and Gaslight Papers.

Further Notes by JOHN STERRY, Honorary Fellow of the Royal Photographic Society.

Special to "Photography and Focus."

PROBABLY before this is in print some will have found difficulties which were not fully indicated in the former article (see *Photography and Focus*, September 14th, 1909, page 212), and under certain conditions their results may even have looked like a failure of the plan altogether.

Should it be found necessary to modify any of the conclusions given, it must be borne in mind that the whole subject has been worked out under difficulties, owing to the limited variety of papers and chemicals which can be obtained in South Australia.

The tendency to green in the blacks with bromide papers generally, and a few gaslight papers, is by far the greatest difficulty met with, and tends to limit the range of exposure available. It has, therefore, received considerable attention, and has led to the choice of a developer, which is described later on, which would be about the last to be used for such papers in the usual way.

The latitude of exposure appears to vary :

1. With the make of paper.
2. With the surface, matt, semi-matt, and glossy.
3. With the amount of bromide in the developer.
4. With the dilution of the developer.
5. With the developing agent used.

No. 1 rests entirely with the makers, and No. 2 is unavoidable, so need not be further considered. Only one paper so far has had to be rejected as unsuitable (a very slow, glossy gaslight, which certainly has not more latitude than two or three times the minimum exposure), whilst the best matt rapid bromide has reached thirty times the minimum, giving a good black print with the latest form of developer mentioned below.

Nos. 3 and 4 may be taken together, and it is soon found that to obtain good blacks and the greatest latitude in exposure that any particular paper can give, the developer must be as active as possible, whilst the bromide is kept low and yet sufficient to give the necessary control.

No. 5. As to choice of developer. In an article in the "British Journal Almanack, 1894," page 776, on "Selective Developers," those then known were classed thus ; "Pyrogallol, ferrous oxalate, and hydroquinone, especially when used with free bromide, select and develop those portions of the plate first which have received most light, and afterwards bring up the detail, and may, therefore, be called density giving developers. Eikonogen, rodinal, and amidol, especially when used without any free bromide, immediately begin to reduce the silver where the least light has acted, density slowly increasing. These may therefore be called detail giving developers."

As our present object is to prevent the detail from coming up too quickly, one naturally turns to the first-class as being the most suitable, and hydroquinone as probably the best of the three (glycin and others might be tried).

The choice therefore rests between—

1. Hydroquinone and carbonate of soda.
2. Hydroquinone and caustic soda.
3. Hydroquinone and formaline.

1. Hydroquinone and sodium carbonate is very good indeed for gaslight papers when it is only desired to secure either black, warm black, or brown prints, but this particular developer will be found to fail to give a long range of black with either gaslight or bromide papers.

2. Hydroquinone and caustic soda. Evidently a good developer, but did not give such good results as No. 3, possibly owing to the sample of caustic soda not being in very good condition.

3. Hydroquinone and formalin has proved far better than any other yet tried, that is for blacks on all papers, and materially increases the general range of efficiency. This should be made up thus and used full strength.

Hydroquinone	66 grains
Sodium sulphite	3 ounces
Potassium bromide	44 grains
Formalin	1½ drams
Water to	10 ounces

With very long exposures a further addition of bromide may be necessary to give sufficient control.

It is not desirable that the paper should have an exposure too near the minimum for the usual method of development, as any forcing of the developer tends to general yellow stain. Bromide papers should be completely developed in from one to five minutes and gaslight in from half to three minutes.

The following test of the method in actual work was arranged to show the lines upon which it is well to commence, and also to see to what extent papers might be developed in the same developer without injury. Half a dozen prints were required from a quarter-plate negative suitable for gaslight paper.

The first was given a test exposure of half an inch of magnesium ribbon at nine inches, and put into one ounce of the above developer. A good black print was obtained in about four minutes, showing by the slow action that the exposure was not very materially above the minimum. The next received double exposure, and developed more quickly. The next again doubled, and so on to the fifth, which, therefore, had sixteen times the first, but, as this showed signs of slower development than the last, indicating a falling off in the strength, the sixth was given the same exposure and developed in new developer.

All six were good prints. Nos. 1, 2, and 3 black. Nos. 4 and 5 good warm black, and No. 6 black, with the faintest trace of warmth. From No. 6, which developed very rapidly, and was almost beyond control with this amount of bromide, it will be seen that for perfect blacks the developer must be kept up to the full strength.

All bromide papers may be treated as of one rapidity by this method, and gaslight as requiring about thirty times as much exposure.

The selection of the paper to be used with any negative will depend solely upon the range or gradation that the paper is capable of giving, and both bromide and gaslight papers are now stocked by dealers as suitable for thin or dense negatives.

Mention has been made of alteration in gradation with long exposure. As the bichromate method of altering gradation (*Photography*, January 30th, 1904 ; September 3rd, 1907) is not available with this method, this subject will need further experiment.



THE practical hints and suggestions which we publish from time to time under this heading are provided by our readers from their own experiences. We are always glad to receive brief notes on minor points in photographic work which any amateur is willing to put at the disposal of his fellow workers in this column. There is no need for the sender to be deterred by the fact that he is unaccustomed to see himself in print, as we are pleased to put the matter into form for the press, if this is necessary.

Preventing Reflections from Bellows.

You have doubtless received many enquiries from readers as to the way to prevent fog on a plate caused by reflections from the bellows. I use a camera which has flat bellows, and was troubled by this fog, and have experienced the same with magazine cameras. The following method is an infallible preventive. A piece of cardboard about the same size as the plate in use is taken, and a rectangular opening cut in it rather smaller than the next size smaller plate, *e.g.*, for a quarter-plate size the opening may be 3in. × 2in. The camera is opened with the bellows extended, and the card is so cut that it can be placed about halfway between the lens and the focussing screen, to rest in a kink in the bellows. When in position, one must look on the screen to see that the card does not stop any of the light that ought to reach the edges of the plate, and the card should be so placed that the lens just allows the view to cover the plate and no more. Both the correct size of the opening and the position of the card are easily found by trial. The card should be painted dead black.—REGINALD W. DANIELS.

A Press for Mounted Prints.

Having had considerable difficulty when mounting prints on rather thick or curly paper, in keeping them in close contact with the mount, I found the following most useful, and also a good way of making use of spoilt plates or old negatives: A box, 5in. × 3⅜in., and 4½in. deep, inside measurements, is made, and to the bottom of this box a flat, smooth piece of wood about 10in. × 6½in. is screwed, screwing from the inside of the box. This box is filled with old plates (this size will take about eighty quarter-plates), and the press is complete. After mounting a print, it is put under the press, and the next print proceeded with, which, when ready, can be put on the top of the first, and the press on both, and so on until the batch is finished, when it will be found that the prints and mounts are both perfectly flat.—S. L. SCHOFIELD.

Metal Dark Slides and Fog.

In conjunction with my camera I use metal dark slides, the shutters of which draw right out. The temporary opening left on drawing out the shutter should be filled with the soft cloth light trap provided in the slide, but this I have not found always to be the case, and on one or two occasions I have had my plates badly fogged. It is my habit to use a stand almost invariably, when, of course, the slide can be safely withdrawn under the cover of the focussing cloth, and then my plates are always free from fog from this source. For those who prefer to dispense with a tripod, may I suggest a simple substitute for the cloth. A bag of Turkey twill at least twice the length of the camera and from two to three inches wider is made. It should be quite full, and in shape somewhat like a slipper, *i.e.*, with a hole one end the same size and shape as the camera back. The edges of this hole should be fitted with elastic, so that it will fit tightly on the back of the camera. When the dark slide has been inserted in the back of the camera, the bag can be put on and the slide entirely withdrawn in perfect safety.—AMATEUR.

Cards with Tinted Borders.

Herewith I enclose a gaslight postcard developed with rodinal (half the developer being freshly mixed) and then transferred to an exhausted developer to stain the edges. I am rather pleased with the effect. Of course, everything depends on exposure, for if this is too short the high lights will stain, and if too long the print will not bear forcing. [The card was masked to give a white margin, and the developer had tinted this coffee colour, although the picture itself was quite unstained. The result was not at all unpleasing.—ED.]—J. A. C. BRANFILL.

An Adaptation of the Chromium Intensifier.

I have recently been using an adaptation of the well-known chromium intensifier, which I have not seen mentioned in any photographic paper, and which I fancy may interest you. It consists of making use of the staining properties of the pyro metol developer. The negative is bleached and washed as usual, then redeveloped with normal pyro metol developer (that is, one pair tabloids per ounce). It is then dipped in water, no more, and stood up or hung up so as to allow the developer to oxidise in the film. In one or two minutes it will have been stained green, the depth depending on the length of exposure to the air. I find that this method surpasses all others I have tried for increasing contrast, as besides considerable actual intensification there is great apparent intensification due to the green stain. This method enables one to avail one's self of the advantages of pyro-metol in cases when it is not admissible as the original developer. such as in tank development.—R. A. CHRYSTAL.

For 3½ × 2½ Workers.

The increasing number of photographers who are using 3½ × 2½ plates may be reminded that it is not essential to buy paper cut to that exact size to make their prints. They may run out of that size, or find a difficulty in obtaining it. In that case it is an easy matter to fall back upon half-plate paper, cutting each sheet accurately into four parts. A cardboard gauge may be made to mark the back of the paper for cutting. Each of the pieces so obtained will be 3¼ × 2⅜in. This is quite large enough when the prints are to be trimmed, and is also just large enough to admit of insertion in the commercial slip-in mounts or albums. As the margin is very small there is increased danger of the print shifting in the mount. To prevent this, when the print is in position the point of a penknife may be used to apply a minute touch of paste to two corners of the print; it is then pressed down well. Although the print will not then move it can easily be detached, if necessary, by introducing behind it the same knife blade.—W. L. F. W.



THE NIGHT COMETH. BY F. HUMPHERSON.

The original of this picture is No. 151 at the Exhibition of the Royal Photographic Society



RIPPLES AND SPRAY. BY W. L. F. WASTELL, F.R.P.S.

The original of this picture is No. 8 at the Exhibition of the Royal Photographic Soci'y

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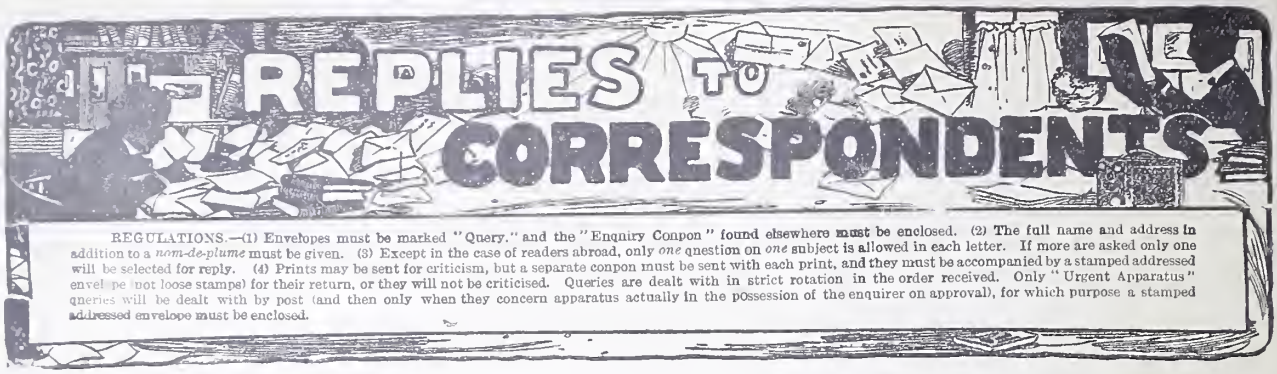


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REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Conpon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate conpon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post (and then only when they concern apparatus actually in the possession of the enquirer on approval), for which purpose a stamped addressed envelope must be enclosed.

ENLARGER (Worcester).—It will do very well.

L. F. WORTHINGTON (Hampstead).—See the announcement elsewhere in this issue.

H. P. (Torquay).—Messrs. Voightlander's London address is 12, Charterhouse Street, Holborn Circus, London, E.C.

G.T.F. (Doncaster).—Try a hundredth unless they are very near, when less might be given to advantage. The ordinary rules apply.

K. U. SEIGE (Manchester).—You might try Messrs. Newton and Co., 3, Fleet Street, London, E.C. They would have them if anybody would.

LYNDHURST (Birkenhead).—The exact number depends on many things, but it is safe to say hundreds. Methylated ether would do, we expect; but we always used the purer kind.

SIGMA (Reading).—The secretary of the Royal Photographic Society, the New Gallery, Regent Street, London, W., is the proper person to whom to apply about the purchase of a picture.

F. W. SUMMERS (Cambridge).—Your letter is interesting, but you do not say on what you base your belief in the permanence of the prints. Time alone will show whether it is justified or not.

C. U. KNOX (Alton).—Nothing of the sort is made, and, to tell the truth, we do not think it at all likely that a half-plate folding reflex will be put upon the market before next spring, if then.

A. B. (Malvern).—We do not quite understand what you mean by "all the liquid possible"; but the squeegeeing should be gentle, not violent, just enough to bring the two surfaces well into contact, nothing more.

JOHN WILLIE (New Cross Road).—We have not the book to refer to, but surely it does not state that, in enlarging, the distance from the plate to the lens is less than the distance from the object to the lens. If it does, it is wrong.

F. B. SMITH (Plumstead).—It is difficult to say how to prevent the dust; certainly we should not expect the light traps to be the cause of it. You might try tin for the shutters, but the space is so limited you will, we expect, always have trouble.

G. W. G. (Aston).—The apparatus sounds very cheap; but we never recommend the purchase of second-hand apparatus unless the purchaser is in a position to judge its condition, and unless you have a friend who can advise you, you would do better to go to the maker and pay the extra price.

G. BOUTHERWOOD (Newport).—Your negative has been sent back. The partial reversal often takes place when a much under-exposed negative is developed in a very strong developer, especially if the dark room light is not very safe. This negative is very badly fogged indeed, so much so that one cannot be at all surprised at what has happened.

ANOTLES (Pangbourne).—Fading has begun and is the cause of the appearance, but it is not possible to say precisely why the prints are fading. At some stage or other you must have gone wrong, or they have been exposed to some deleterious influence. The prints properly made and reasonably kept should be as fresh now as when they were first made.

WALTER (Birmingham).—We are not at all surprised at the discrepancy, which is easily explained by the fact that the focal length which you took as the basis of your calculations was only an approximate one. It is always best to confirm the calculation by actual trial, as it is far less trouble to see that the image is sharp, than to work out and measure the exact position of the screen to give a sharp picture.

LENS (Dudley).—It might or it might not. All would depend on whether the mount of the lens allowed the increased aperture to be effective or not. If it does, the rapidity will be increased in proportion to the square of the increased diameter. For example, if the diameter of the opening is already threequarters of an inch, and you enlarge it by a quarter, making the diameter four quarters, the exposures will be reduced in the proportion of sixteen to nine.

AMATEUR (Swansea).—We can only say that we think you have made an excellent selection.

L. W. (Brentford).—As far as we know metal carriers for dark slides are not on the market.

TEE GEE (Durham).—Quite right; a "Winchester quart" bottle holds eighty ounces—half a gallon.

COMPETITOR (Penrith).—There is no entrance fee, nor any restriction beyond that stated on page xxii.

ESPERANTO (Bowes Park).—If the negatives are suitable and the toning is not carried too far they should be obtained easily enough.

CONSTANT READER (Stevenage).—There is no need to repeat an enquiry unless you first give us time to answer, and we cannot undertake to reply in less than a clear week between receipt of the enquiry and date of issue containing our answer. The materials used are to be obtained from any chemist or dealer; or may he got direct from one of the big houses if you prefer it. Why not apply to a local chemist for them?

A. S. P. (Liverpool).—Yes, it is quite as safe as any other form of illuminant, but very fast or orthochromatic plates must only be exposed to it very guardedly.

F. S. (Haywards Heath).—The line is a pressure mark of some kind. It is most probably caused by some projection over which the surface of the film is drawn in the camera

ARCHER CLARKE (Larkhall Rise).—Thanks for your comments, some of which, as you see, we are reproducing this week. Could not one side of the glass be used for glazing and the other for trimming?

H. LAMB (Warrington).—There is no need to apologise; we are always glad to be of assistance. The fault is that the carbonate is insufficient. Probably the correct formula gave eighty grains, not eight; at any rate, this is about the quantity required.

STAFFA (Egerton).—The best book on blockmaking is "The Half-tone Process," by Julius Verfasser, price 5s. nett, or post free 5s. 6d. from our publishers. To succeed in the work it would have to be set about very seriously, and requires a good deal of plant.

F. ARNOTT (Scholes).—It is clear that you are not developing for long enough. If on doubling or trebling the time of development you still do not get enough density, increase the exposure also. Full exposure and full development (until the image shows well through on the back) are required.

PIMPLEBERRY (Bradford).—There is nothing better than ordinary gum to which just a trace of glycerine or of golden syrup has been added, to prevent labels from coming off the bottles when very dry. To prevent them from coming off with moisture they may be painted over with negative varnish.

C. S. B. S. (Gosport).—A skilled photographer might be able to develop plates by it without fogging them, but from your enquiry we should think it would be wise to invest in some red fabric or paper, and use that in addition to the yellow. Light fog is a common defect, and a very serious one from the point of view of getting good photographs.

CURIOUS (Cyprus).—Some of those on which there is any image are blurred, showing that either the picture was not properly focussed or the camera was moved; but the chief fault of all is the hopeless fogging. This may be due to unsuitable developer or to an unsafe light in the dark room. Were the plates very stale, that might cause it, but they do not look as if they were fogged from this cause.

B. BOOTHROYD (Weston-super-Mare).—There are various ways of turning the image blue, but as a rule these give very crude, unpleasant Prussian blue shades, and your best way would be to use a dye, say one of the Dolly series. If you still think of toning, you will find "Toning Bromide Prints," by R. E. Blake-Smith, price 1s. nett, or post free from our publishers 1s. 2d., a very handy work.

SERIES (Swindon).—You cannot go far wrong if you get a seven-inch Homocentric Series III.

W. BROWN (Lozells).—You will find the article you want on page 618 of our issue for December 1st, 1908.

SHEATHS (Ealing).—The makers, Houghtons, Ltd., 88 and 89, High Holborn, London, W.C., would no doubt be pleased to supply them.

PIMPER (Kendal).—The full particulars of the competitions are published at least once every month. They are on page xxii. this week.

J. F. C. (Scarborough).—The leader on the subject, which was in type when your enquiry reached us, will, we think, tell you all you want to know.

A. T. ELLNERS (Tachbrook Street).—The Agfa flash powder will enable exposures to be made by night, or ordinary magnesium powder and a blow-through flash lamp.

J. H. HOWARTH (Droylsden).—Many thanks for your letter and candid criticism. There is nothing to excuse, and we value a careful and deliberate expression of opinion. We have also to thank you for the suggestion, which we shall bear in mind, and may perhaps be able to adopt.

S. E. TEELOAR (N. Kensington).—We are sorry we can make no exception to our rule as to replying by post. Queries are dealt with in the paper in the order in which they are received, but, owing to their number, we cannot guarantee to deal with them in the next issue to go to press.

E. T. BILLEMESS (Hailsham).—Unless your lens is a very bad one of its kind, it ought to do all you want, and used on a lantern size plate, should give no perceptible distortion whatever, and also good definition. An ordinary half-plate R.R. lens would also do very well. A photo-mechanical plate would be the most suitable for the work.

H. B. S. (Ilford).—It is the pyro which has discoloured, and we suspect that the sulphite has deteriorated. You could still use the developer, we expect, if you use a five per cent. solution of sodium sulphite, instead of water, with it. An acid alum clearing bath, such as was described in our columns three or four weeks ago, will get rid of a good deal of the stain.

T. C. NEATH (Nuneaton).—We do not publish your letter, as you do not appear to have tested the plates for speed except by using them in the camera, and in the present condition of the question this is hardly enough on which to base a charge of "fraud." The whole system of the speed numbering of plates we consider to be most unsatisfactory, but it is not to be improved by "calling names," as we think you yourself will realise.

H. N. VIALE (Elim, S.A.)—We are sorry we cannot accept prints for the "Critical Causerie," but our contributor makes his own selection from the prints sent in to the competitions. The little print you forward is good technically, but it suffers from the inclusion of a lot of blank, white sky; see the "Causerie" on this subject. We are always glad to hear from distant readers, and if a print is too late for one month it is entered in the next.

H. HUNT (North Walsham).—The formula is an excellent one, quite as good as anything you can buy, and we expect that nothing is amiss with it beyond that you are unaccustomed to the comparatively slow action of a pyro-soda developer. Develop for two or three times as long, omit the bromide and the four drams of water, and if the action is still too slow use more pyro.

SPEED (Highbury).—The question is one into which we must decline to enter. We have published our views on the subject in the paper and there we propose to leave it. Do not fancy, however, that you will be able to detect in your work a difference in speed between plates 250 and 300 H. and D. It is quite inappreciable, except in a measuring machine. And do not try and judge speed by looking at detail in the shadows, or you will be misled to a certainty. There is a lot of rubbish talked and written on this subject by those who have never measured the speed of a plate in their lives.

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THE PORTSMOUTH CAMERA CLUB issued a well illustrated catalogue of its exhibition, which closed on the 14th inst.

ENSIGN FILM COMPETITION. The winner in this for October is Miss E. M. Russell of 43, Westbourne Terrace, Hyde Park, W.

THE SOUTHPORT PHOTOGRAPHIC exhibition will be held in the Atkinson Art Gallery from December 4th to January 1st. Entries close November 15th. The prospectus and entry form is now ready, and can be obtained from the honorary secretary, Mr. J. McLellan, Limefield, 2, Pilkington Road, Southport.

DEMONSTRATING BROMOIL at the Croydon Camera Club, Mr. J. M. Sellors showed how he made the bromoil direct and not from the finished bromide print. He took the bromide paper, exposed and developed it, rinsed it, and then put it into the ordinary bromoil solution. It was then washed, treated with sulphuric acid, and fixed. In this way the bromoil may be made ready for pigmenting within half an hour or so of making the exposure.

PHOTOGRAPHERS ARE MADE OF STERNER stuff than the average hunter. Who would wait hour after hour crouching, cramp-racked, in the skin of a sheep or tormented by mosquitoes that they dare not brush away, for the sake of shooting even a raven or an eagle? There are, perhaps, men in the gun room who would take a camera and face the lion in his native desert, but none who can see the fun of staying up all night in order to photograph even the last British phalarope or bearded tit. Yet our books abound with photographs of the intimate domestic life of common, but timid, birds, every one of which must have cost hours of patience and resource to obtain ("The Nation.")

BROWN TONES ON SLIDES BY DEVELOPMENT. Mr. Creighton Beckett, lecturing at the South Suburban Photographic Society, said that he used warm tone plates, giving them three times the normal exposure, say, ten to fifteen seconds at a distance of one foot from a No. 5 Bray burner. The developer is made up in the form of three ten per cent. stock solutions, viz., pryo (with metabisulphite), liquid ammonia (.880), and ammonium bromide. The working developer is made by adding together forty-five drops of each of the three ten per cent. solutions, and water added to make two ounces. The same developer used with a black tone plate gives a brownish black tone, more black than brown.

THE LECTURES AT THE BLENHEIM Club this winter are being arranged by Mr. F. Martin Duncan. The first is on Thursday, October 28th, when Mr. H. W. Fincham will deal with "Ely Cathedral, Queen of the Marshlands."

THE EARTHQUAKE BOOK. The President of the Italian Photographic Society writes us that the book of Messina and Reggio is now in the press, and that it is hoped that the distribution will commence in the month of December.

ORTHOCHROMATIC SCREENS. "If makers of screens could arrange the case which contains the screen so that it forms a cap for the lens, it would be an advantage in many cases. I notice that Messrs. Houghton have adopted the idea.—ARCHER CLARKE."

THE EASTMAN KODAK CO., of New Jersey, has declared an extra dividend of two and a half per cent. upon the common stock of the company, payable December 1st, 1909, to stockholders of record at the close of business on October 30th. The usual quarterly dividends will be paid on January 1st, 1910.

MARION'S PLATES for very many years have enjoyed the very highest reputation for all-round excellence. Messrs. Marion and Co., of 22 and 23, Soho Square, London, W., have just issued a little booklet of prices of the plates, flat films, and papers which they make at their Southgate factory, for which our readers would do well to drop a postcard.

"'THE WALRUS,'" writes Mr. Aubrey G. Raymond, "has blundered in his 'Piffle' of the 5th inst. The fountain which he describes as respectable and law-abiding, and which he says religiously ceases squizzling at 4 p.m. daily, did *not* cease playing at that time on October 20th, 1908. The fountain was a law-breaker on the eve of Trafalgar Day, 1908, and at 5.45 p.m. I started exposing a plate in Trafalgar Square, including in my view the fountain playing. Being a special occasion, the fountain was allowed to play beyond its usual time; therefore it was possible to obtain a negative of the Square by night with the fountain actually playing, and without having to resort to any pencil work or other faking of the fountain on negative or print."

PHOTOGRAMS OF THE YEAR for 1909 has just made its appearance, and will be found to contain a large number of well printed illustrations, some of which are amongst the leading pictures of the year, although with them there are a number to which such a term can hardly be applied. M. Demachy provides a well written critical *resumé* of the present position of pictorial photography in France, most of the rest of the letterpress being by Mr. Snowden Ward. The book is one which many will buy, but we still await a volume which shall give in an adequate manner the year's photographs, with either valuable expert criticism upon them, or none at all.

"OPTICAL LANTERNS and How to Use Them" is the title of a sixpenny booklet issued by Messrs. W. Butcher and Sons, Ltd., of Camera House, Farringdon Avenue, London, E.C.

THE SOUTH SUBURBAN Photographic Society has a beginners' evening once a month. The honorary secretary, Mr. J. Nixon, of Rydal, Ingleside Grove, Blackheath, will supply full particulars.

THE SHEW CAMERAS and other specialities are illustrated and described in a price list which has just been issued by Messrs. J. F. Shew and Co., of 88, Newman Street, Oxford Street, London, W. It will be sent to any of our readers in return for a postcard.

A HINT TO SECRETARIES. A well-known lecturer, who charges nothing for his lectures, told us the other day that out of twenty recent applications for lectures during the coming season only one secretary enclosed a stamp for a reply. That thoughtful secretary was the only one who was able to book a date.

CHRISTMAS MOUNTS and calendars for 1910 have come to hand from the Crown Manufactory, Rotherham. They form the subject of a special price list, which will be sent free on demand. The series include also adhesive gilt mottoes, gummed seals, etc., suitable for those who make their Christmas cards at home. Amongst the samples sent we note several of a very tasteful character.

THE HEREFORDSHIRE PHOTOGRAPHIC Society, at its annual meeting elected the following officers: President, W. Pilley; vice-presidents, A. Watkins, W. J. Humfrys, J. Parker, W. Cecil Gethen, W. E. Haines, and Gus Edwards; treasurer, W. Marchant; librarian, W. Davies; lanternist, S. Beeson; auditor, C. W. Slatter; council, E. G. Davies, W. Williams, P. L. Earle, T. E. Kemp, W. A. Grosvenor, J. Taylor, H. J. Unwin, J. C. Derry, W. W. Robinson, and A. Elliott. The honorary secretary is now Mr. F. C. Pritchard, of High Town, Hereford.

BROMOIL. Mr. Franzmann, on this topic, told the Southend-on-Sea Photographic Society that the bromide print should be on the strong side. He had used many different makes of bromide paper, and thought the platino-matt varieties best. He used to get tubes of ink specially sold for the purpose, but now uses printer's ink, thinned down when necessary with linseed oil. For a whole-plate print he uses a No. 10 brush. He soaked the print in water, and then bleached it with—

Ozobrome solution	...	4 parts
10% alum	...	4 parts
10% citric acid	...	1 part
Water up to	...	20 parts

The more citric acid, the greater contrast. After a rinse the print was put into 5% sulphuric acid for about five minutes, rinsed again, and then fixed for a minute in—

Hypo	...	1 ounce
Sodium sulphite	...	¼ ounce
Water	...	10 ounces

The solution should be kept at about sixty-five degrees.

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MONDAY, OCTOBER 25TH.

South London P.S. "How to." H. Creighton Beckett.
Bradford P.S. "Wellington and Ward's Specialities." A. R. Sharpe.
Marylebone C.C. "Thumb *v.* Mechanical Means of Photography." Dr. F. Ellison.
Preston C.C. "Queen of the Fenlands." W. Cowperthwaite.
Walsall P.S. "Photographing Microscopic Objects." A. Leal.
Royal (Exhibition). "Trip Round the World." C. J. Marshall.
Leeds C.C. "Oil Printing." C. F. Inston.
Leek P.S. "Thornton-Pickard Demonstration." Mr. Hesketh.
Sidcup C.C. "Ozobrome." T. Manly.
Oxford C.C. Affiliation Lecture on 1908 Prints.

TUESDAY, OCTOBER 26TH.

Kinning Park C.C. Club Meeting.
Leeds P.S. "An Evening with Pictures." W. Bagshawe.
Hackney P.S. "York and the N.E. Yorkshire Dales." N.E. Railway Co.
Nelson C.C. "Slides from Rambles." A. Pennington.
St. Helen's C.C. "Flashlight Photography." Mr. Hart.
Dover Institute P.S. "Photographic Facts and Fallacies." P. C. Marsh.
Doncaster C.C. Prize Slides.
Manchester A.P.S. "Epping Forest." J. Hayward.
Nelson P.S. Print Evening.
Halifax C.C. "Tenets of Art as Applied to Photography." H. Barratt.
Otley and D.C. & A.S. "Pigmoil." J. Allport.
Glasgow S.P.A. Lantern Slide Competition.
Birmingham P.S. Members' Lantern Evening.

WEDNESDAY, OCTOBER 27TH.

Watford C.C. Exhibition.
Sheffield P.S. "The Camera and the Sea." F. J. Mortimer.
Sale P.S. "Pinhole Photography." A. Redfern.
Borough Poly. P.S. Affiliation Competition Slides.
Ilford P.S. "Gradation." F. H. Joel.
Balham C.C. "Carbon Printing." H. Tozer.
Leicester P.S. "One Man Show of Pictures." G. L. N. Blair.
Edinburgh P.S. "Bromoil." S. A. Knoblanch.
Croydon C.C. "Travels with the Camera." C. H. Dymond.
G.E.R. Mech. Inst. "Ensyna." F. Marshall.

THURSDAY, OCTOBER 28TH.

Trent C.C. "Thornton-Pickard Prize Slides." R. Hesketh.
Preston C.C. Folio Print Criticism.
Blenheim C. "Ely Cathedral." H. V. Finchman.

THURSDAY, OCTOBER 28TH (*Continued*).

Fernhead W.G.P.S. "Boardoid Lecturette." Messrs. Leto.
Brighouse P.S. "Candlelight Development." W. de Welford.
Glasgow E.P.A. "Possibilities of the Pinhole in Photography." Rev. J. B. Thomson.
Maidstone & Inst. C.C. Ten Minutes' Lecturettes. Members.
L. & P.P.A. Annual Supper.
Rochdale A.P.S. "Control." T. Lee Syms.
Hull P.S. "Negative Making." J. Hollingworth.
Leeds C.C. "Camera and the Sea." F. J. Mortimer.
Royal (Exhibition). "Catacombs of Rome." S. J. Beckett.
Watford C.C. Exhibition.
Liverpool A.P.A. "Woodlands of Wirral." Dr. C. T. Green.
Richmond C.C. Paper. F. P. Cembrano.
Aston P.S. "Crystoid Films." G. E. Mountford.
Handsworth P.S. Exhibition.
Brunswick C.C. Bazaar.
Wimbledon & D.C.C. Annual General Meeting.
Nottingham C.C. Beginners' Night. T. Wright.

FRIDAY, OCTOBER 29TH.

Salisbury C.C. Prize Slides.
Birkenhead P.A. "Lantern Slide Making." Members.
Colne C.C. "Ely, Southwell, and Gloucester." Rev. A. Gray.
Lincoln A.P.S. "Sports and Pastimes with the Goerz Folding Camera."
Bradford P.S. "A Tramp along South Cornish Coast." W. Waring.

SATURDAY, OCTOBER 30TH.

Kinning Park C.C. Hillington Road.
Royal (Exhibition). "Westminster Abbey." S. G. Kimber.

MONDAY, NOVEMBER 1ST.

South London P.S. "The Englishman's Home." G. H. Lovegrove.
Bradford P.S. "Glimpses in Birdland." T. G. Askew.
Wolverhampton P.S. "The Avon." H. Baker.
Preston C.C. General Meeting.
Bolton C.C. "Meaning of the Word 'Art.'" J. A. Grindrod.
Wallasey A.P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Glasgow & W. of S.A.P.A. "Autotype Carbon Printing." J. W. Downs.
Catford & Forest Hill P.S. "Stereoscopic Photography."
Canterbury C.C. Kodak Lantern Lecture.
Stafford P.S. "Newest Printing Methods." Messrs. Griffins.
Leek P.S. Lantern Night.
Walsall P.S. "William Blake." E. J. Shaw.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

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"The time has come, the Walrus said, to talk of many things."

I SHOULD think the topmost summit of photographic enthusiasm is reached when a couple decide to spend their honeymoon taking photographs. Not but what that is a more rational proceeding than spending most of the time holding hands and looking soppy. I remember that when I went for a honeymoon myself, somewhere about the year 1632, I was guiltless of ever having used a camera. It was about the only thing I was guiltless of. My chief ambition on that more or less festive occasion was not to capture exhibition subjects, but to row the other half of me in a small boat from Easthourne round Beachy Head and back, against the tide each way. In a careless moment I had said I could do it; so it had to be done. I wore out the seats of several boats, and kept the whole fraternity of beach-men in a state of daily expectation of retrieving our bodies from the deep; and to this day it is a wonder to me that our honeymoon was not continued in the Elysian fields. But I accomplished the feat, and wore for the rest of the so-called holiday one of the finest and most complete sets of blisters ever carried about by one little chap.

* * *

If I ever had to face the ordeal of another honeymoon (which may the fates forfend) I don't know but what photography would be a more comfortable and less blistery amusement, for I have just read quite a pleasant little account of such a honeymoon, signed jointly by Clarissa and Adolphus Spooner. Of course, those are not exactly the names. You must not expect too much. In this article there is strong internal evidence that Clarissa and Adolphus were so united a couple that they were really and truly one. For example, they only used one camera between them. What a perfectly sweet, symbolic idea it would have been had they used a stereoscopic camera, so that Clarissa could have made an exposure with one lens while Adolphus uncapped the other.

* * *

As another instance of unity, although the honeymoonists have both signed the article, and used the pronoun "we," at times it is stated that "I" did this, and "I" said that. Who was "I"? Was it Clarissa? Was it Adolphus? It must have been Claradolissaphus. Talk about unity!

* * *

I am sorry to learn that this charming entity was disappointed in the country girl as a means of securing genre photographs. They (or should it be *it?*) expected to find for their pictures "a pretty red-cheeked damsel of not more than twenty-five years of age, with a sunbonnet, skirt tucked up to display a dainty pair of ankles, naturally-curly hair; civil, well-spoken, and vivacious." Oh, Adolphus! What they, or it, really found was "a slatternly female of uncertain age, complexion of a dirty brown, hair in curling-rags or pins, skirt very old and torn, wearing men's dirty boots; uncivil, unruly, and bovine." Oh, Clarissa!

* * *

So Adolphus was constrained to provide his radiant Clarissa with a print sunbonnet and a white apron (with, let us hope, a few additional items), and to pose her as the figure in his honeymoon landscapes. The results were so satisfactory that the united couple conclude their article with the remark that they hope to submit them to the critics at the larger exhibitions. But, alas! I have searched in vain through the catalogue of the largest exhibition for the names of Clarissa and Adolphus Spooner. They are not there.

* * *

Talking about exhibitions, I have read some millions of remarks on the two big London shows, but I think quite the most comical was this: "The Salon has no place for the faked photograph." I have read that observation forwards, backwards, upside down, sideways, and cat-a-cornered, and each way is funnier than the others. I respect and admire the Linked Ring, and if not all its works at least most of them; but I confess I have never hitherto regarded the gifted members as rigid sticklers for pure, unadulterated, straight photography. I apologise.

* * *

Last Saturday as ever was I had it forcibly borne in upon me that I am a hopelessly futile and particularly dunder-headed chump. I have been led to suspect this to be the case from occasional remarks of candid friends. Now I must sadly admit it as true. There is no loophole of escape. I was standing with a hand camera in Trafalgar Square. For the thousandth time I was waiting to obtain a photograph of one of the fountains squirting bravely against the sunset sky. It has already been done, I know, but I want to do it properly. One of the numerous hindrances to success is the horde of small tatterdemalions slopping around the edge of the basin playing Christopher Columbus and the very devil. To my surprise I found that the whole horde was gathered well out of my way at one edge of the water, yelling like Bedlam broke loose. I turned my eyes in that direction. And behold, one of the young savages was disporting dolphin-wise in the water, clothes and all. He dived clean under, came up, stumbled into deeper water, disappeared, came up again, and then vanished except for the back of a ragged coat and two wobbly feet. It then dawned on me that here was a novel subject for a news photograph. It also dawned on me that the poor little beggar was drowning.

* * *

I can place it to my credit that I then abandoned the idea of press photographs, and ran like Barney's bull with the intention of sacrificing my only clothes and fishing the poor brat out. But before I got to him one of the homeless tramps in the Square slopped in after him heels over head. He got him all right, and then slunk quietly off to dry in some cold corner or other. I must say I was relieved at not having to carry away one of the fountains in my boots, but if ever Nelson's statue falls off its column they might do worse than replace it with a statue of that tramp. I lost my photographs, but I envy that tramp. He did the right thing long before I thought of it, and I should prefer a photograph of him to any fountain that ever squirted.

* * *

I have now another shameful confession to make. I have to inform you, dear Mr. Editor, and readers all, that to the best of my knowledge and belief this present is my 350th page.

* * *

Mercy!

* * *

Help! help!!

THE WALRUS.

SUBSCRIPTIONS.

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Plate Speeds : A Straight Talk.

Showing the difficulty a photographer has in comparing plates of different speeds by an analogy with the railway train : the fallacies of many so-called speed testers : the effect of fog in vitiating a test.

HS recently as last week's issue we stated that we had nothing more to say upon the subject of plate speeds and the possibility or otherwise of the ordinary user being able to estimate them; but we have received so many enquiries on the subject and so many of our readers have written asking for some more definite information on the point that we feel that something more is necessary. A photographer told flatly that he cannot distinguish between the speed of two plates one of which is twice as fast as the other is inclined to be nettled by the remark. If he were told that two plates were respectively 200 and 300 H. and D., and yet informed that he could not say from a single exposure of each which was the faster, he might be forgiven for thinking he was being made fun of. And yet, in all seriousness, that is hardly, if at all, an exaggeration of the case.

Let us see for a moment what he would do if he had to compare the two plates.

How would he Compare them ?

He might expose them both in the camera under exactly the same conditions, perhaps in a series of strips giving increasing exposure, if he felt very scientific; but probably he would give one plate the exposure he thought correct for it and the other the same exposure, relying upon an examination of the negatives afterwards to tell him which plate was the faster. The negatives finished, he would compare them, and would particularly compare the extent of the shadow detail in each, and the plate which gave the most detail in the shadows would be regarded is the faster. He might even make some sort of an estimate from a comparison of the two how much faster one was than the other.

We put it to the reader that this is a fair description of what would happen if he had to compare two plates, and we add, further, that in the great majority of cases such a test would be fallacious, and, except by some lucky accident, misleading.

If a photographer uses a few dozen of one plate and then a few dozen of another it is different. It does not follow that because the test generally applied is unreliable there is nothing in having a faster plate, and that a photographer, especially one who did much with very short exposures, would find no difference between a fast plate and a slow one. Slight differences of speed might be completely hidden by differences in development or manipulation; but if there was a decided difference —say a hundred per cent. —the photographer who used a number of one plate and a number of the other would probably detect the difference between them. But then he would draw his conclusion from his work generally, and by his work we mean the quality of his prints, and not by an examination of the detail visible on the negative in the deepest shadows.

A Railway Simile.

Perhaps an analogy will make our meaning clearer, and it is an analogy suggested naturally by our weekly journey to Coventry to see *Photography and Focus* put to press. The journey is a very fast one, for the London and North-Western prides itself on its express service. Outside Euston station is a long incline up to Chalk Farm—so steep that in the early days of railways the trains were drawn up with a rope, the locomotives being attached only when the train

MEMORANDA *for the week.*

This space is used to draw the attention of our readers to such free offers made by manufacturers or dealers as we advise them to avail themselves of.

reached the top. Now, however, the powerful engines haul trains up that incline without any assistance, but the regular traveller cannot fail to notice that different engines vary enormously in the speed at which they ascend the incline. Some of the heavy goods engines, with eight small driving wheels, could take a passenger train up it as fast again as one of the lighter passenger engines with only two or perhaps four large drivers; yet when once that incline is surmounted and the train gets into its stride the passenger engine would show the goods a clean pair of heels in no time.

Which is the Faster Engine?

What should we think of the man who, asked to pick the engine for the quickest journey down to Coventry, selected the engine which made the best speed up the Euston incline? Yet that is practically what the photographer does who tries to find the fastest plate by looking at the detail in the deepest shadows.

Plate makers and those who have gone into the matter know that as far as giving perceptible detail with extremely short exposures is concerned, some plates far surpass others, although when used in the camera it is found after long experience that those others actually call for less exposure. Plate manufacture for many years was held back because this fact was not realised. All the early systems of plate speed testing were based on an estimate of the detail in the deepest shadows, and, although it was recognised that this was unsatisfactory and misleading, it was not until the Hurter and Driffield system was introduced that this was altered. Now it is not our intention to describe the Hurter and Driffield system here; in its details it is essentially a plate maker's and not a plate user's matter. But we must point out two fundamental matters in which it differed from those methods which had preceded it. One of these was that for speed testing it

Ignored Shadow Details Entirely.

The reading was based on the shortest exposure that would give a useful negative, and if one plate would do this with half the exposure required by another, the Hurter and Driffield system gave that first plate as being twice as fast as the second, as from the plate user's point of view it is, of course, regardless whether the one or the other seemed to give more shadow detail. To resort once more to the railway analogy, Messrs. Hurter and Driffield picked as their engine for the quickest journey that one which travelled fastest over the great stretch of route of which the journey consisted, and not the one which happened to be the faster over a quite exceptional little bit at the start. It is only for this to be put fairly before the plate user for him to see at once that for any practical system of speed testing this is the proper, indeed the only, course to pursue.

A Simple Experiment.

The other fundamental difference between the Hurter and Driffield system and its predecessors was that it took "fog" into consideration. To show what this means, let the photographer hold a negative with very little detail in its shadows up to the light, and while doing so let him place on the far side of the negative a piece of tissue or tracing paper so that it covers half the plate. He will at once see that he will be able to perceive more detail in the part that is covered by the tissue paper than in the uncovered part. If the uncovered part looks like an under-exposed negative, the covered part looks more like what a properly exposed negative usually looks like. A deposit of fog over the whole negative has the same effect as the tissue paper, and all the earlier systems of speed testing would make a plate if slightly fogged appear to be faster than the same plate not fogged. Messrs. Hurter and Driffield showed the necessity for allowing for fog before estimating the speed at all, and so in this respect, as in the other, brought the measuring of the speed of a plate into line with the requirements of the photographer who was going to use that plate.

They did other things of the greatest importance to the plate user, but these two are all that need concern us for the moment. We have merely endeavoured to show why it is that the photographer by his ordinary tests cannot estimate plate speeds, and can only detect differences in speed when these differences are very great. It is always a difficult task to convince anyone that he cannot do what he thinks he can do, and we are not so unreasonable as to suppose that we have been able to do so within the limits of a short article. But if we have made him a little distrustful of the results of so-called tests, we shall have done quite as much as we expect. It only remains for us to add that nothing herein set down suggests that for work requiring the shortest possible exposures there is no advantage in employing the fastest possible plates. There is, and a great advantage, only we must be sure first that they *are* the fastest possible plates.

R. C. B.



The Lantern Slide Competition.

The result of our lantern slide competition, which we publish this week on page 367, is one which is very gratifying. Both in numbers and in quality the entries constitute a record, and the judging was a task which we are heartily glad is over. When we say that there was more than one class with as many entries as a year or two back were sent in for the whole competition, we do not exaggerate. It would have been quite an easy matter to select three or four first-rate sets for circulation. The only weak class in quality—there were no weak ones in number—was the scientific class; here we had to choose between poor photography of rare or difficult subjects and good photography of commonplace subjects, and the choice was often a very difficult one. The set commences its round on November 1st, and any secretary wishing to borrow it, who has not yet made application, would do well to do so without

loss of time, sending a list of his vacant dates to "Lantern Slide Department, Messrs. Iliffe and Sons, Ltd., Coventry." The awards, and those slides which were unsuccessful but were accompanied by stamps for their return, will, we hope, be despatched to the competitors within the next two or three weeks.

THE LIMITATION.

I've "taken" hosts of subjects with unvarying success
In awkward situations—I've snap-shotted for the Press;
All things in rapid motion, from a horse tram to a train,
Could not elude the swiftness of my whirring "focal-plane."

I've "taken" district messengers and tearing motor cars,
And also aviators on their journeys to the stars;
I've "snapped" the scorching cyclist on his record-breaking spins;
The motions of a man who trod upon banana skins.

I've "shot" the fuming footballer; the golf ball in its flight;
And tackled almost everything, in varied kinds of light;
The racehorse at the winning-post, when leading by an ear;
The speedy Cabinet Minister, when suffragettes are near.

I felt I had a power in my shutter which would check
The swiftest forms of motion with the thousandth of a sec.;
But now I find its lightning speed not quick enough by half,
To give me sharpness when I take our baby's photograph.

A Broad-minded Dean.

The Dean of Peterborough, writing to *The Times*, points out that the statement made in that paper that application for permission to photograph in cathedrals should be made to the Dean is not correct as far as Peterborough is concerned. "In this cathedral, at any rate, so long as the exigencies of public worship and decencies which befit a place of worship are duly observed, nobody is hindered from taking photographs and no 'permit' is required. The desire to take photographs is, I suppose, one of the forms in which interest in what ought to be of interest and public concern finds natural expression, and as such, in my view of the matter, should be welcomed and encouraged. The question of Sunday photographing stands, I think, apart. The Sunday services, ranging as they do from early morning until late evening, leave but brief intervals of rest to those who must be in charge, while it is open, of a cathedral building."

The only comment which amateur photographers can pass on such a letter is, "Why are not all Deans like unto Dean Page?" A more broad-minded and, we venture to add, correct and commonsense view of the subject we have never yet seen in type. Beyond "the exigencies of public worship and decencies which befit a place of worship" there are no restrictions, and with these limitations every right-thinking photographer would agree. But the Dean goes farther, and bases the prohibition of Sunday photography in the cathedral on nothing more than the difficulty of supervision—a difficulty which in such a building is obvious enough. It is quite clear from this that those who photograph in the open country on a Sunday would not have his disapproval—at any rate, if it did not interfere with the religious duties of the day—and that he would not form one of those singular people who allow the hand but prohibit the stand camera on a Sunday.

Graduated Measures.

It is so easy for the maker to ensure the graduation on a glass measure being near enough for all photographic purposes, that it was with a great deal of surprise that we got a ten-ounce measure which had been sold to one of our readers, which measure proved to have an error of considerably over ten per cent. We are not advocates of useless refinements but an error as large as this is quite inexcusable. Those who have a number of graduated vessels on their shelves would do well to see if they are correct. A measure may be checked by weight by placing it on the scales and counterbalancing it as accurately as possible. Each measured ounce of water should then correspond to an avoirdupois ounce by weight (437·5 grains). The correspondence will only be exact if distilled water at 62° Fahr. is used; but if the experiment is made at ordinary temperatures with ordinary tap water, it will be quite accurate enough for all photographic purposes, and far more so than the misleading measures which led us to pen this caution.



Cooking Both Ways

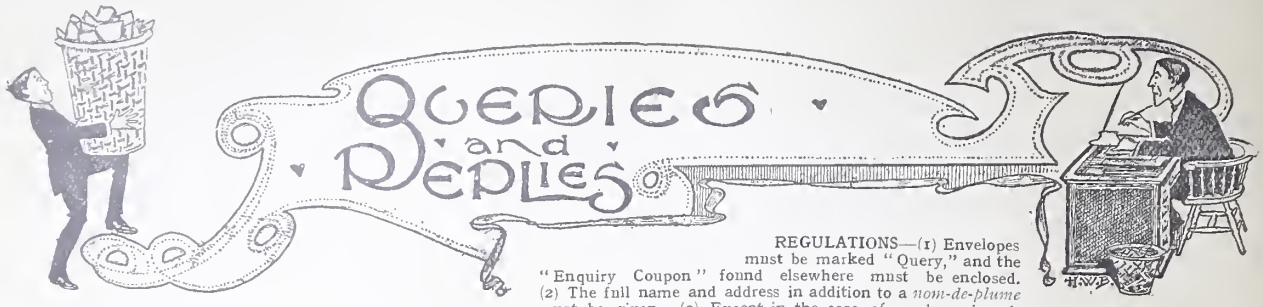


Amongst the features of last weeks issue of "Photography" were

A top light in home portraiture.
Control in development of bromide prints.
Bernard Shaw on Photography.
Workroom dodges.
Home-made carbon tissue.

Next week amongst other matters we hope to deal with

Enlarging on P.O.P.
Portraits with toned borders.
Mounting with starch.
Odds and Ends.
Photographic reconstruction.



REGULATIONS—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

L. C. B. YEOMAN (Jamaica).—We have sent your letter on.

C.V.N. (Manningtree).—The print is toned either with platinum or with gold followed by platinum, probably the former.

HUMPHREYS (Corwen).—We know of none other than those given in the article which we published in our issue for June 8th, 1909, page 468.

REX (Eaglescliffe).—You would probably have to get them made; but you might try W. Tyler, Ltd., Waterloo Road, London, S.E., first.

W. O. E. MEADE-KING (Maidenhead). — The prints have apparently been bleached without preliminary fixing. They should be printed deeply, fixed, well washed, and then submitted to the process described.

PUZZLED (Manchester).—Ordinary whitewash or distemper should be used, giving at least two coats. It is made of whiting, size, and hot water, and should be applied while hot. A little ordinary washing blue will counteract any tendency to yellowness.

DENSITY (Kearsley).—A lens is not injured by being used on a plate larger than the one for which it is constructed: any harm that would result would show itself by the definition on the edges of the large plate being poor, or by the image not extending up to the edges.

CAMBOURNE (Dalton-in-Furness).—It would not be wise to use them for hypo, nor indeed for developing, as they would very rapidly become useless. If they were well coated and kept well coated with Brunswick black they would answer, but they would want a great deal of attention, far more than they were worth.

J. MARYNEU (Brussels).—The matt is got by painting the background first with ordinary oil paint and then "flatting" it by going over it with some of the pigment mixed up with turpentine only, a second operator following up with a large "badger softener," stippling with this brush, dry, to take out brush marks.

A.H. (Harpurhey).—You are both wrong. The term negative has nothing whatever to do with reversal of right for left. If a transparency or print has the lights of the original represented as darks in the photograph and *vice versa*, it is a negative. If the lights are represented as lights and the darks as darks it is a positive.

R.C.C. (Burslem).—The matter is too much of a trade speciality for us to answer your question definitely: but were we in your position we should try the carbon process, learning first to make prints by it on transfer paper, and then when this was done, try to make them on copper instead of paper. Our publishers have a shilling book on the carbon process, post free 1s. 2d., which will give you full particulars.

REDCAR (Urmston).—The plate should be left for ten minutes in a solution of twenty grains of potassium bichromate in four ounces of water, to which half a dram of hydrochloric acid has been added. It should then be placed under the tap until all the yellowness due to the bichromate has vanished, and finally redeveloped in a non-staining developer, washed and dried. The whole of the operations can be carried out in ordinary daylight.

R. S. WHITEWAY (Shottermill).—The whole of the deposit can be bleached away by applying with a brush to the dry negative a mixture of equal parts of a saturated solution of iodine in alcohol and of potassium cyanide in water. This may be diluted with from one to five times its bulk of water according to the speed of action desired. The mixture is extremely poisonous. The negative after treatment should be washed under the tap for half an hour.

G. THOMAS (Manchester).—The reason why the design is not a good one is that such a shutter would have a very low efficiency. That is to say, that during the whole of the exposure the shutter would be opening or shutting, and at no time would the lens be fully open. You will be able to see that for yourself if you work it very slowly. Were it possible to enlarge the opening very considerably and then work it more quickly, it would be more efficient; but it does not appear to be possible with your design.

C. B. WATERLOW (Coventry).—Certainly it is admissible to register a photograph which has been or is going to be exhibited.

J. H. WILSON (Enfield Lock).—Coupon received, but we have no postcards from you. Please note rule above as to criticism if you send us prints for that purpose.

E. G. THOMPSON (Stockport). — Rogers and Webster, of 161, High Holborn, London, W.C., supply frame makers' materials as well as frames. Would not a directory of Manchester answer your question better?

DENSER (Heaton Chapel).—Probably our leading article last week told you what you wanted to know. Any dealer will quote you for a 5½in. condenser, which is the smallest that will cover the entire plate properly.

FRAME-MAKER (Croydon).—The ordinary quality is good enough if a nice piece is selected, but the large dealers supply a special quality for those who care to use it. Your other questions were all answered at length in last week's issue.

BERT HURLSTONE (Weymouth).—It is caused by reflection from the back of the plate, and its appearance suggests its name—halation. You will nearly always get it if the sun appears in the subject. Real solar halos are not unknown, however; but this is not one.

J. GASH (Nottingham) asks if he can make lantern slides from prints taken from old books (one is dated 1842) without infringing copyright. *A.*—It is possible that there is still a copyright in them, but it is not very probable; and the chances are that he would be within his rights in doing so.

S. E. MACNAIR (Coimbra, Portugal).—The only way we can account for the mottling is that the card has been affected by some piece of packing paper or card with which it has been in contact. This is borne out by the fact that all the card is degraded and grey, even its edges where it has been masked.

HASTINGS (Bedford).—Certainly, it is done by many workers. We do not understand your "how." The method is the same as with other printing processes, except that the exposures are modified to suit the different sensitiveness of gaslight papers. You will find a number of articles on the subject in our back numbers.

DURLSTON (Newport).—We should expect to find both solutions quite good at the end of six months if the bottle had not been opened since they were made up. But with constant opening the solution would always be deteriorating, and although we think the two or three days a very low estimate indeed, it is probably meant to be taken more as a suggestion to use the solution as fresh as possible than quite literally.

M.S. (Ealing).—The defect is in the plate or its treatment and not in the camera, as is clear from the spot of fog being quite different in appearance from the rest of the image. At the same time it is highly improbable that it is a manufacturing defect. It is in all probability due to removing the plate too soon from the fixing bath, or to the use of an alum bath before the hypo is washed out. Either would cause it. We have sent the plate back.

DEVELOPING AND TONING (Carrick-on-Suir).—The method is not practical with pyro; but a partly printed p.o.p. print may be developed by immersing it for five minutes in a ten per cent. solution of potassium bromide, and then washing and developing it with hydrokinone thus:

A.	Hydrokinone	60 grains
	Sodium sulphite	½ ounce
	Water	50 ounces
B.	Potassium bromide ..	8 grains
	Sodium carbonate ..	6 ounces
	Water	50 ounces

Equal parts of each are taken for use.

VENEZUELA (Ciudad Bolwar).—Our own preference is for No. 1 with the Sector shutter. There is no difference between "orthochromatic" and "isochromatic." The so-called moonlight effects are obtained by facing the sun, when the sun itself is just hidden by a cloud, and then underexposing. The effect is a very false one. We are always glad to hear from distant readers.

T. B. (Amersham).—The matter is having attention.

PLATE SPEENS (Leeds).—Sorry, but we must decline to be drawn.

W. ARMSTRONG (Prudhoe).—We have handed your letter to our advertisement department for attention.

H. G. PAGAN LOWE (Doncaster).—The London address of Messrs. Zeiss is No. 29, Margaret Street, Regent Street, London, W.

P. ELLIOTT (Croydon).—The explanation of the reversal is quite simple. The plate by some mistake was put into the camera with its glass side towards the lens.

MR. MATHERS (East Road, N.) asks if it is possible to photograph a rainbow. *A.*—Certainly, it has often been done, it has even been autochromed. The chief thing to guard against is over-exposure.

TRESCO (Bedford Park).—The names of several makers will be found amongst our advertisements; but whether any of them would entertain the matter can only be ascertained by writing and asking them.

FINESSE (Guernsey).—We are sorry to say we do not know of any; advertising or looking out for advertisements seems to be the only way of getting into touch. Most of the postcard firms employ their own operators.

S.J.J. (Dartford). — You must get a wide-angle lens. One of five inch focus, which will cover a postcard with a little stopping down, say at f/16, will do what you want. The actual make will depend on what you mean by "expensive."

FORT (Ripon).—The staining is due to the complete absence of any "stain preventive" from the formula, which is very old one, and long replaced by others in which sulphite figures. You have plenty to pick from. Every box of plates contains one.

M. JAIN (Jhalrapatan, India).—There is nothing better for cleaning the slabs than soap and water and a flannel, finishing with a polish with a cloth containing just a trace of petroleum. The discolouration is due to something radically wrong with either the paper on the developer, probably the latter.

CONSTANT READER (Market Rasen).—This is just one of those questions which it is impossible for us or for anyone else not actually on the spot to answer very satisfactorily. The Agfa powder is what we should advise, and a note to Mr. Zimmermann, 9 and 10, St. Mary-at-Hill, London, E.C., would bring you particulars of the powder and of the exposure meter they supply for use with it. You would do well to use the make of plate to which you are accustomed.

G. C. (Macclesfield).—No such formula is very satisfactory, and we certainly can find none in our columns, going back some years. You will be wise to avoid any stock toning bath, but make up just as much as you want and throw it away afterwards. You can make it up of stock solutions. An ounce of ammonium sulphocyanide in water to make ten ounces is one, and the other fifteen grains of gold chloride in fifteen drams of water. For a shillingsworth of paper half an ounce of the sulphocyanide solution is diluted with six ounces of hot water, and three drams of the gold solution added. A proportional quantity is made up for any less quantity of paper. The bath is ready for use as soon as it is quite cold.

ANSELMO (Neston).—We are always glad to be of service. Your lens is an excellent one for the purpose, and there is no reason why the complete lens should not be used for all the negatives. There is no need to stop it down more than is necessary to make the picture on the screen *look* sharp. Any want of sharpness would not be due to the illuminant, but to something else, possibly vibration or movement of the apparatus after focussing. It is quite impossible to give even an approximate exposure, which might be, with full aperture, anything up to an hour or even more. Try exposing a sheet covering the negative, in stages, with a card, so that it has, say, 10, 20, 40, 80, and 160 minutes, and you will see from that about what exposure to give.

SNAP-SHOTS

OUR COMPETITIONS. Full particulars of these, including the special competition for over-seas workers, will be found this week on page xxii.

SLIGHTLY CONFUSED. The "Pall Mall Gazette" started its notice of the Shaw improvisation thus "Speaking at the Water Colour Society's Photographic Salon as the guest of the Linked Ring," etc.

THE ROTARY PHOTOGRAPHIC CO., Ltd., write asking us to point out that they have no connection with a firm styling itself "The Rotary Photographic Enlargement Company: Branches (London and Provinces)," on whose behalf householders in the North of London are being canvassed for orders for enlargements.

AT THE CARDIFF WINDSOR Photographic Society's exhibition the prize winners were: Class I., 1st, J. A. Lomax; 2nd, J. A. Lomax. II., 1st, J. Vaughan Evans; 2nd, F. H. Brown. III., 1st, H. N. Nash; 2nd, F. T. Gillett. IV., 1st, F. T. Gillett; 2nd, T. J. Chorley. V., 1st, J. A. Lomax; 2nd, J. Vaughan Evans. VI., 1st, J. A. Lomax; 2nd, T. J. Chorley. VII., 1st, F. T. Ford; 2nd, A. V. Loyns.

SLIDES OF NURSERY RHYMES. The Thornton-Pickard Co. is issuing a number of lantern slides of very cleverly arranged subjects, based on the most popular nursery rhymes. With juvenile audiences they should prove very popular, while any photographic audience would find a pleasure in seeing how very successfully many difficult subjects have been dealt with. Particulars of the slides can be obtained on application to the company, at Altrincham, Cheshire.

BIRMINGHAM PHOTOGRAPHIC SOCIETY. At the annual meeting the following officers were elected: President, Harold Holcroft; vice-presidents, Harold Baker, J. Hall-Edwards, B. Shirley Smith, and G. Whitehouse; treasurer, H. W. Rennie; secretary, S. Wortley, LL.B.; lantern curator, Bernard Moore; council, E. A. Biermann, R. Caswell, S. A. Cutlack, W. T. Greatbatch, Lewis Lloyd, J. Cruwys Richards, P. F. Storrs, and F. S. Worsley. The address of the secretary is 10, Newhall Street, Birmingham.

THE IMPERIAL ORTHOCHROME PLATES form the subject of a little illustrated booklet which has just been published by the Imperial Dry Plate Co., Ltd., of Cricklewood, London, N.W., and will be sent to any reader of *Photography and Focus* on demand. The book gives particulars, amongst other things, of the Imperial N.F. (non-filter) plate, an orthochromatic plate which contains in itself the filter dye, so that used without any other filter at all an orthochromatic result is got similar to that obtained on the Orthochrome plate with a four times filter.

THE SOUTHAMPTON CAMERA CLUB Exhibition entries close on the 12th inst. Entry forms can be obtained from Mr. S. G. Kimber, Oakdene, Highfield, Southampton.

THE TORBAY CAMERA SOCIETY'S June portfolio competition has resulted in the first place being taken by Mrs. Marillier, the second by C. F. Rea, and the third by Miss Marillier.

THE SUTTON PHOTOGRAPHIC CLUB. The late honorary secretary having resigned owing to pressure of business, Mr. V. Jobling, of Wolferton, Gordon Road, Carshalton, has been elected in his place.

THE SOUTH ESSEX CAMERA CLUB has concluded an arrangement with the Editor of the local paper to provide the matter for a photographic column once a month. The members are being asked to supply paragraphs to the Press secretary of the society, who arranges for the press the information he receives.

AT THE ROTHERHAM PHOTOGRAPHIC Society's exhibition silver plaques were awarded to B. Cox and O. C. Wilmot, and bronze plaques to F. Parkin, H. G. Paterson, P. F. Storrs, A. W. Walburn, P. Smedley, F. A. Tinker (2), A. Black, U. M. Jones, C. H. Parker, A. Taylor, F. A. Jordan, M. Creswick (2), Miss E. H. Tillotson, A. E. Rawson, W. Firth, W. B. Davison, F. G. Blackshaw, A. S. Pye (2), R. Chislett, and A. E. Peck.

LECTURING ON JAPINE at the Hull Photographic Society, Rev. J. Beanland said that the negatives before printing should be dried carefully in a warm room. The printing frames should also be thoroughly dried and either blotting paper or old films used as pads to prevent any risk of moisture reaching the paper. The springs of the frames should also be good, and if worn out they should be renewed or discarded. Sepia Japine is of the same rapidity as ordinary black platinotype paper, and takes two-thirds the time to print that ordinary P.O.P. does. It must not be printed in direct sunshine.

EARLIER MEETINGS AT THE R.P.S. Mr. C. J. Trevarthen, of Watford, writes: "I have just heard from the secretary of the Royal Photographic Society that the council are quite willing to try the experiment of having one meeting in the month at an earlier hour than usual if there are a sufficient number of members who desire this change and will attend the meetings, so as to make it worth while doing." The time suggested is 5.30 p.m., and I should be glad if you could see your way to draw attention to the proposal and ask members who would find the earlier hour a convenience to send a postcard to Mr. McIntosh stating they desire the change. It seems certain also that there must be many interested in photography who would like to join the R.P.S., but have been deterred hitherto by the inconvenience of having to remain in town from the conclusion of business until so late an hour as 8 p.m. in order to attend the meetings.

RECEIVING STOLEN GOODS. Two men were sentenced to three years' penal servitude at the London Sessions for feloniously receiving a number of cameras and other articles stolen from the premises of Messrs. Newman and Guardia.

"WHICH WOULD YOU prefer," said the hippopotamus, "to be shot at by an amateur sportsman or snapped by an amateur photographer?" "It seems a hard choice," answered the lion, 'between possible death and certain disfigurement."—"The Camera.'

PHOTOTYPIE. The French word "Phototypie" covers a wider ground than that in which our term collotype is generally used, being applied generally to all processes in which a number of copies are got by inking up a bichromated colloid surface which has received a photographic impression. The handbook of Phototypie, by J. Voisin, which is published by the firm of C. Meudel, of 118, Rue d'Assas, Paris, price 2 francs, has now reached its second edition.

Stale Gaslight Papers.

EVERY photographer who uses much gaslight paper must have had the experience at some time or another of finding that some which has been kept for some time has from some cause or another "gone wrong." Mr. R. A. Chrystal, writing in "Photo Notes," says that this is generally due to damp.

For instance, he describes how he got a packet of paper, used some of it and found it in good order, and then put the rest away in a cupboard, reputed to be damp, for a week. At the end of that time it would give nothing but flat prints, even when bromide was used freely. The following evening the rest of the packet was put in front of the fire for an hour or two, and then with the same developer, but without bromide, the paper once more gave brilliant results.

About the same time he got a packet of a very old paper that has been off the market for some years. The dealer from whom he bought it considered it valueless, as he had had it in stock for many years. Merely heated, it gave grey results, but by gradually increasing the amount of bromide a clean print was got with terrific contrast, as might be expected when in some cases nearly half an ounce of a ten per cent. solution of bromide was added to four ounces of developer. In some cases the tone of the print was greenish, but it gave a good result when sulphide toned. He subsequently bought up the whole stock of this paper from the dealer and had no further trouble.

These results point to the importance of keeping gaslight paper where it will not run the risk of getting damp; while Mr. Chrystal's success with the dried paper may give some of our readers a hint of a method they can put into practice with any gaslight paper which they may have on their hands under the impression that it is spoiled.

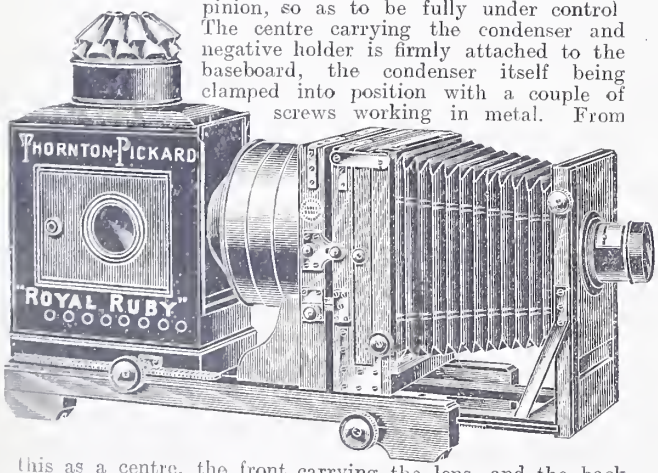


THE·LATEST·IN·APPARATUS·&·MATERIAL.

The Thornton-Pickard Manufacturing Co.'s Enlargers.

SINCE the Thornton-Pickard Manufacturing Co. added the making of enlarging apparatus to that of cameras and shutters a constantly improving series of models have been put out, the succession reaching its climax in the Royal Ruby enlarger, which we illustrate below, and which we have recently had an opportunity of examining. The standard pattern, the Ruby enlarging lantern, is still made, and the Uneeka, referred to below, is a new design. All the enlargers of the firm this season are made so that they can be used both for enlarging and for the projection of slides.

The Royal Ruby enlarger is an enlarging lantern de luxe. It has every movement that the most critical user can possibly want, and every movement is made by rack and pinion, so as to be fully under control The centre carrying the condenser and negative holder is firmly attached to the baseboard, the condenser itself being clamped into position with a couple of screws working in metal. From



this as a centre, the front carrying the lens, and the back forming the body and containing the illuminant, are both adjusted by means of separate racks and pinions, the connection between condenser and body being formed by a telescopic metal attachment. The extension is long enough to allow the enlarger to be used also for reducing to lantern slide size. The bellows are detachable in an instant, being fitted to two wooden frames fastening in very much the same way as a reversing back fastens, so as to allow the enlarger to be used for science projection also. The rising front is actuated by a rack and pinion, which can be locked instantly in any selected position.

The most important features, however, are to be found in the part which carries the negative. This has a rising movement with rack and pinion, a cross movement, and a device by which the negative can be completely rotated by rack and pinion, as well as a swing back, which is controlled in the same way. The negative can thus be placed in any desired position towards the lens, and any distortion it may possess remedied in a moment. If slides are to be projected the carrier comes out, and is replaced by another which clamps rigidly into position, and a smaller condenser mounted in a block is inserted in place of the ordinary condenser.

The enlarger is well designed, and the woodwork throughout is very nicely finished. The body is of Russian iron with bright copper fittings, making it a very handsome piece of apparatus. The enlarger is made in three sizes, quarter-plate, 5 × 4 and postcard, and half-plate. The quarter-plate size, complete with 5½in. condenser and portrait lens, sells at £10 10s.

The other new pattern enlarger is known as the Uneeka, and is made for the enlargement of negatives from 3½ × 2½ downwards in size. It has a rack and pinion tilting arrangement in both directions, detachable bellows, and rising and falling front, so that the user is fully equipped to meet all the demands of his process. It can be used to enlarge from the centre of a quarter-plate also, and only needs the insertion of a slide carrier to fit it at once for optical projection. The Uneeka fills a very real want on the part of the user of a small size camera. It fills it very efficiently, and when its many adjustments are concerned, it fills it very cheaply, as the complete enlarger, condenser, lens, and lantern slide carrier only cost £5.

The Gevaert Printing-Out-Paper.

THE readers of *Photography and Focus* know that it has been a rule of that paper, ever since it started, and of *Photography* itself before it, not to review photographic materials until they have been submitted to a careful and adequate test. Indeed, it is difficult to see what use the type of review to be seen in many journals, a mere string of fulsome phrases supplied by the advertiser and printed as part of his advertisement contract, can possibly be either to the readers or to the advertiser, since the true nature of the transaction is generally obvious enough, and the flattery discounted accordingly. The one drawback of a review such as ours is that it is quite impossible to publish it so soon as the ready-made review, and the more complete the test the greater will be the delay.

The appearance on the British market of a new brand of P.O.P., new here, that is, although it has long enjoyed a

high reputation on the Continent, is a sufficiently important fact to justify a very careful examination and report on the product, and this we are now able to give to our readers concerning the Gevaert P.O.P. This paper is made in one of the finest photographic factories in Europe, situated a little way out of Antwerp, and constructed and equipped for its work in the most perfect manner. The precautions taken against dust, for example, are of the most elaborate character, and everything that can be done to secure a perfect and uniform product is done.

The Gevaert P.O.P. is a gelatino-chloride paper (a collodio-chloride is also made, to which we do not at present refer) which is supplied both in paper and postcard substance, in three grades—glossy which is made in mauve, white and pink, matt white both thin and thick, and semi-glossy or carbon surface both thin and thick. There is also a special thick glossy grade in mauve only. The paper is known on the Continent as "Blue Star P.O.P." Following the instructions issued with the paper, our first prints on it were made a little deeper than they should look when finished, and then, after washing, were toned in a simple sulpho-cyanide bath, the formula for which was given in the packet. In this way they toned very easily, and in less than four minutes they were beginning to have that bluish tinge which marks the fully toned print. After rinsing and fixing in a hypo solution of a strength of two ounces to the pint, they proved to be in every way excellent. The tone was a rich "photographic" purple, of ample depth, and the whites as pure as could be wished.

Some other prints were toned in a combined bath of the ordinary type, and here also the paper proved to be perfectly satisfactory.

As so many of our readers like to give their P.O.P. prints as high a gloss as possible, we point out that Messrs. Gevaert recommend treating glass plates with a solution of a hundred and eighty grains of white wax in a pint of benzole. The glass is well polished with this, and the wet prints are then squeegeed down on it. To do this a couple of thicknesses of pure soft paper should be laid on the prints, and then all air bells expelled with either a flat or a roller squeegee. When dry the prints drop off the glass spontaneously.

It only remains for us to say that all the Gevaert P.O.P. which we have used, and we have now used a number of packets of various grades, behaved equally well. Each trial only served to confirm our first impressions that here was a first-class product, equal in all respects to any printing material of the kind we had ever used. And we are convinced that our readers who take it up will think the same.

The Busch Reflex Camera.

REFLEX cameras have enjoyed a great share of the attention of manufacturers in recent years, and there is in consequence no form of photographic apparatus which has undergone such rapid development. When, therefore, we received a sample of the very latest comer, the Busch reflex, our first thought was that so well arranged and cleverly designed a piece of photographic apparatus was unthinkable a few years ago. For there is no gainsaying the fact that this particular pattern is as attractive a piece of apparatus as has come in our way for a long time.



Externally, the keynote of the whole is unobtrusiveness. The bellows and hood are of black leather, the woodwork is ebonised, all the metal parts are finished in polished black. With the most trifling exception, every visible part of the camera is darkened over, so as to be as unnoticeable as possible. Internally, the arrangements show that the requirements of the user of a reflex have been the object of careful study, and everything possible has been done to meet them. The regulation of the speed of the shutter, which is done entirely from the outside, is effected by varying the width of the slit and the tension of the spring which actuates it. A scale is provided beside the focussing screen, which permits the width of the slit to be measured. The speeds range from a third to a thousandth of a second, and time exposures can also be given at will.

The hood of this camera is long, and very distinctive in shape. It allows every part of the focussing screen to be seen clearly, and, being mounted on a hinged frame, can be removed in a moment, if the ground-glass requires cleaning, and this latter is itself mounted in such a way as to admit of instant removal to get at the mirror. The mirror itself is of glass silvered on the surface, and a word of caution in connection with it may prevent the injury of a valuable instrument. With mirrors silvered on the face, the greatest care must be used, in cleaning, not to damage that face. A wipe with a duster which would not in the least hurt a mirror silvered on the back might impair the fine polish of the silver surface. If it needs cleaning at all, then, it should be brushed lightly with a camel-hair brush; but, as far as possible, necessity for meddling with it should be avoided by taking care to keep it as clean as possible by keeping the whole camera out of the way of dirt.

The camera is fitted with a rotating back, the focussing screen in the finder being square. The front is carried on four metal racks actuated by a single milled head—an arrangement which secures a perfectly rigid front, capable of carrying the heaviest of lenses without any want of parallelism. Amongst the many features of the camera which we like, this method of securing the extension takes our fancy most. The racking out is very smooth and steady, and the front firm at any extension.

The Busch reflex camera is made in $3\frac{1}{2} \times 2\frac{1}{2}$, $4\frac{1}{4} \times 3\frac{1}{4}$, and $5\frac{1}{2} \times 3\frac{1}{2}$ sizes. The price of the $3\frac{1}{2} \times 2\frac{1}{2}$ camera with Detective Aplanat is £12, and of the quarter-plate £13 10s. This price includes in each case three well finished ebonised double dark slides, with aluminium fittings.

The Busch reflex camera is an admirable little instrument both in design and in workmanship.

Fallowfield's Christmas and New Year Mounts.

AN illustrated price list, together with a number of samples of mounts suitable for Christmas and New Year cards and calendars, comes to hand from Messrs. Fallowfield, of 146, Charing Cross Road, London, W.C. The specimens are of the most varied character. Amongst them will be found cards to suit the most divergent tastes; in fact, it is impossible to look through such a list without wonder at the skilled craftsmanship and the taste which is devoted to these missives of kindliness and good will.

Amongst the cards which caught our attention on looking through the series was a double one of vellum with a yule log and spinning wheel design on the front, in red, black, and gold, and with a couple of leaves inside of thin white card, with an embossed opening to take a print, slipped in. This was No. 319, and is priced at 3s. 3d. per dozen for midget size, 3s. 6d. for c.d.v. Another very attractive card was No. 358, made of grey linen-surface card, with a white card inside, the grey being cut out to show a design on the white card below. These, with an opening 3 by 2, sell at 3s. per dozen. For those who wish to use larger photographs there are such cards as No. 307, of ivory white, with an embossed design shaded in grey, and made to take a cabinet print. These sell at 3s. 6d. per dozen. But these are only just one or two selected here and there from a multiplicity of cards of all sizes, styles, and prices. The photographer who cannot find amongst them something to suit his own taste will indeed be hard to please.

London by an Artist with the Camera.

A Set of Photogravures by Coburn.



THERE may have been some of our readers who did not quite follow what was meant by Mr. Bernard Shaw in his improvisation last week, when he referred to "the economic difficulty." He had in mind the fact that there is no large public for pictorial photography, such as goes to the big exhibitions, prepared to pay several guineas for a print; and so he who looks to live by the production of such photographs must adopt some printing method less lengthy and elaborate than oil, or platinum-plus-gum, or any of those processes, so that he can sell them for shillings instead of guineas, and so secure some return for his labour. It is here that photogravure may find a most important future, since the personal touch which makes the picture valuable may be given almost as effectively in a photogravure as in an oil print, while the process allows of a considerable number of prints being made in a comparatively short time. "G. B. S." said that Coburn had realised both the difficulty and the way out, that he had gone to trade classes and worked hard to master photogravure, and that his forthcoming book on London would show how well he had done so.

The London book has been published (by Messrs. Duckworth and Co., 3, Henrietta Street, Covent Garden, London, W.C., price £1 5s. nett), and a copy has been in our hands for the last week or two. It is a handsome volume (each page is 16in. × 12in.), containing twenty mounted photogravure prints of Metropolitan subjects, with an interesting introduction by Mr. Hilaire Belloc, M.P. Perhaps the best part of this introduction is its concluding paragraph:

> "This London, the spirit of which is so united, has no famous citadel or dominating hill from which it may be seized at once, and the circumstance of its air and contours seems to forbid one vision of it.
>
> "I would, nevertheless, advise anyone who desires an impression as rare as it is permanent to sit up some Saturday night in the neighbourhood of the Spaniards, in June, let us say, having chosen fine weather, and watch the dawn over London. He will be surprised. A Sunday morning after a spell of south-westerly gales of wet weather, followed by the beginning of a fine day, shows you the heights upon the Surrey side almost as clear cut as in a southern Continental landscape. Hampstead Heath has been so protected by the law that to the northward building, though it exists, is masked by belts of trees, and one looks down as it were from the edge of an inviolate countryside, down on to the immensity of the town. It is with difficulty and without curiosity that a man can pick out in that view such and such a shapeless monument, such and such a site, or possibly, if he be keen-eyed, hints of the distant shipping below the Pool. What he sees is more wonderful than a view the points of which can easily be determined; he sees a sort of dead lake of men under the empty and silent morning, a hollow land into which has flowed, almost in spite of their own wills, these millions packed as water is packed, and level as water is level. It lies there, defenceless, thinking nothing, and asleep.
>
> "I have watched it so perhaps half a dozen times in my life upon Sunday mornings so chosen. The memory is profound."

The photogravures have been produced by Mr. Coburn, and printed by him in his own house, so that the personal connection is as close as it well could be; yet, thanks to photogravure, we are able to purchase them at a price which works out at nothing more than one and threepence each, with an introduction by a real live M.P. thrown in. In putting the financial aspect of the case thus baldly, we must not be supposed to depreciate the book. Very far from it. Some of the illustrations in it do not strike a responsive note within us, but others—and there are several of them—are to our thinking individually well worth the whole price of the twenty, and more. And some of those which appeal least to us appeal strongest to others, we note.

Amongst the most successful of his pictures we place the beautiful "London Bridge" shown a year or two ago at the Salon. Then there is "St. Paul's and Ludgate Hill," which he has kindly allowed us to reproduce this week on the opposite page. A photogravure of necessity loses very greatly in being reproduced in half-tone, but our picture will at least give some idea of the strength and force of the original. That little known waterway, the Regent's Canal, provides him with a subject for one of the best of the series, and Waterloo Bridge and the Sphinx on the Embankment may be selected as another.

Every pictorial worker who has felt tempted at any time to secure some example of modern camera work should make a point of seeing this volume, and not only of seeing but of purchasing it. It gives us Coburn at his best. It gives us his version of a city teeming with pictorial possibilities—a city in which every Briton must take a legitimate interest and a legitimate pride. The work throughout is strong, purposeful artistry, and such as it is it will remain, since the process is as permanent as any human work on paper can be.

The Sinclair Handbook of Photography.

THE tendency of manufacturers and dealers to supply their customers with books of instruction is one which is no doubt responsible for the almost complete disappearance of the independent photographic textbook. Whereas a few years ago, when photographers were far less numerous than they are to-day, there was a large sale for such works, to-day, with one or two conspicuous exceptions, the case is quite the reverse. The Ilford Book and the Barnet Book, to say nothing of such free guides as the Wellington booklets, seem to meet almost all the requirements of the amateur in the way of instruction, and now Messrs. Sinclair, of the Haymarket, enter the field with a complete guide to all the ordinary processes, each section written by an expert, and the whole edited by Mr. Sinclair himself, a worker as well equipped for his task as any who could be named.

The "Sinclair Handbook of Photography" consists of 170 pages of reading matter, dealing with negative making and all the popular forms of printing, the selection and use of a hand camera, flashlight work, autochrome, slide making, and law for photographers. It is sold at a shilling post free, for which price it can be obtained as it is, or bound up with Messrs. Sinclair's catalogue. It is clearly written, well printed and well illustrated, and is all the guide an amateur taking up photography could want during his novitiate.



LUDGATE HILL. BY ALVIN LANGDON COBURN.

Some Reflex Notes.

and a suggested improvement.

By "Tag" Special to "Photography & Focus."

THE reflex is the camera *par excellence* for outdoor child photography, for studies of fisher and market people, for photography of the rural worker, and for following boats or other objects on the move, and snapping when the composition is at its best. It has, however, one disadvantage, it is probably the most noticeable form of hand camera; and this may sometimes prevent good work from being done. One generally has to point the camera so straight at the subject that, unless the models are very busy, consciousness of the camera is often very evident.

There are two or three ways of avoiding this which the writer has tried recently in a small French fishing town with some success. One of these, in the case of a group of people working or talking, is to focus on some other object in an entirely different direction, but at about the same distance away, and just to look in the camera as if looking for a subject, sometimes swinging it leisurely round past the group to be taken. The focussing is to be verified as opportunity occurs, and then one can loiter about with attention apparently on other matters until the chance comes, as it generally will come, to snap the group at an unconscious moment. One must not reveal by a look that the object is attained, as then another exposure can sometimes be made.



VEGETABLES FOR SALE. BY "TAG."



THE HAT STALL. BY "TAG."

In one or two cases the camera was pointed backwards under the left arm, while I was talking to a friend, and apparently paying attention to some matter in front of me. An eye was kept on the focussing screen, and an exposure made when the models were serenely unconscious that the photographer had any designs on them.

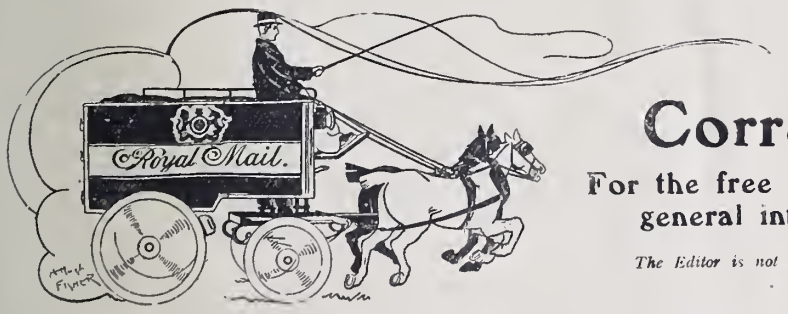
On another occasion a good subject was photographed by sitting down on the sloping end of a quayside, placing the camera across my knees with the hood open, taking out a book, and seeming to be reading, but really looking at the focussing screen occasionally. The hand that seemed to be supporting the camera was quite in position for action when the models were engrossed in their own affairs.

Why not a Reversing Hood?

This and similar incidents made me wish that the hood were reversible. We have reversing and revolving camera backs, some of which cannot be brought into use when the plate is ready for action. It seems to me that a reversing hood would often be as great a boon, and should not be difficult or costly. The reflex then could easier be used pointing across the body; and its use, owing to the photographer not facing his model, would not be so perceptible. It could be used at "eye-level" (also pointing sidewise). The hood could often be revolved when one had not time to close the dark slide, and turn the reversing or revolving back, and this would sometimes make for quicker work. The hood could be used also when the camera was being brought into use as a stand instrument, allowing the plate to be kept ready for instant exposure. Lastly, a revolving hood, fitted to an old-fashioned non-reversing back reflex, would make it, for most purposes, the equal of the latest.



A Coat of Tar. *By M. R. Tozer.*



Correspondence.

For the free discussion of all matters of general interest to photographers.

The Editor is not responsible for the opinion of his correspondents.

THE ROYAL PHOTOGRAPHIC SOCIETY.

Sir,—In your note anent the R.P.S. you make a remark which I think must interest the great majority of country members. I refer to the sentence which runs, "The society is steadily tending towards making itself more of a club for the members and less the official head of photography in this country. The advancement of photography seems to be lost sight of, and its real purpose has become the providing of enlarging rooms and dark rooms for a few metropolitan photographers."

Now this is exactly what has been running in my mind for a long time, and I have been hoping that some more prominent country member than I would ventilate the matter. As things are at present there is very little to induce photographers in the country to join the society. We are constantly reminded that it is our duty to bring in new members, but what can we offer them in return for their guinea?

I remember some few years ago trying to persuade a friend to join. He lived in the country and said that the R.P.S. was of no use to him. Since then he has gone to live in London, has become not only a member but a fellow, a prominent member of the council and of the selecting committee. But he looked at the thing, as hundreds of others

lo. from a business point of view. and would not join till e could get a fair return for his money.

And this is exactly what scores of country photographers e feeling. I think it behoves the officials of the R.P.S. o wake up and give the country members a little more for their money. I am not sure but that it would pay them to make the country subscription 10s. 6d. instead of a guinea.

Yours, etc., C. J. KING.

[We are afraid Mr. King has missed the point of our paragraph. which was to deprecate the idea that the R.P.S. exists to give its members, whether country or town, "a little more for their money." The Royal Photographic Society stands alone in this country, we believe, as the society which, as far at least as its professions go, does *not exist* for the benefit of its members, like ordinary societies and clubs, but for "the advancement of photography." The complaint against it is not that it studies its town members rather than its country ones, but that it studies either classes at all instead of taking the wider view, and concerning itself with the interests of "photography" as it should do. Of late years, the change that has come over the policy of the society in this respect is very marked, and in nothing is it more conspicuous than in the neglect of its fine library, and in the subservience of everything else at its exhibition to money making. But, of course, if members like Mr. King's friend, who avowedly joined to get "a fair return for his money" become "prominent members of the council," nothing else is to be expected. No doubt he takes care that he gets it.—ED.]

THE ACID FIXING BATH.

Sir,—With reference to the article upon "Making up the Acid Fixing Bath." by W. L. F. Wastell, in a recent issue of *Photography and Focus*. I should like to draw attention to one or two points which are inaccurate, so that any misunderstanding that may arise may be cleared up.

If sulphuric acid be added to a solution of hypo and sodium sulphite, the hypo *is* attacked by the acid, in preference to the sulphite. The reason that no precipitate of sulphur appears is that whatever sulphur is liberated by decomposition of the hypo at once combines with the sulphite to form hypo again.

The basis of all acid fixing baths is sulphurous acid, and when we add metabisulphite to the fixing bath it is the sulphurous acid contained in this substance that we utilise.

It is certainly a dangerous proceeding (if we value our plates or prints) to add sulphuric acid to a bath containing hypo and sodium sulphite. What should be done is to add to the fixing bath a small quantity of a solution of sodium sulphite to which has been added enough acid to create the required sulphurous acid.

Yours, etc.,
W. FRANCIS BROOKS.

[On this subject Mr. Archer Clarke writes to point out that "sulphurous acid does all that potassium metabisulphite will do, and more cheaply, costing 2d. per lb. against 1s. 6d. for the metalbisulphite. One drachm of sulphurous acid may be added to every twenty ounces of water, in which four ounces of hypo are dissolved. If the solution is weaker in hypo less acid may be added." This is certainly better than the method advocated in the last paragraph of Mr. Brooks's letter, which offers no safeguard against the introduction of sulphuric acid direct into the hypo—a thing which is the base of much of the prejudice which exists against acid fixing baths.—ED.]

CORROSION IN LANTERN SLIDES.

Sir,—With reference to J. Williams's letter in your issue of October 19th, the following remarks on corrosion in slides may be of interest.

Your correspondent does not state whether the surface of the glass slide in contact with the gelatine is cloudy as well as the cover glass. Should such be the case, I suggest that the film of gelatine may have been transferred from its original support to the present one by means of a solution containing hydrofluoric acid or a fluoride, and that the acid might not have been entirely washed away. This in course of time would probably lead to the effect he describes.

Five or six years ago, while cutting down some very old window glass to make supports for printing films, I had occasion to dry several pieces before a fire. Three of these became extremely hot, and in course of a few weeks portions of the surface turned dull and rough. This continued gradually for several days, until the whole of both surfaces became disintegrated. During this time faint crackling noises were occasionally heard, and minute splinters of glass were projected as dust for a distance of about three inches around the plates.

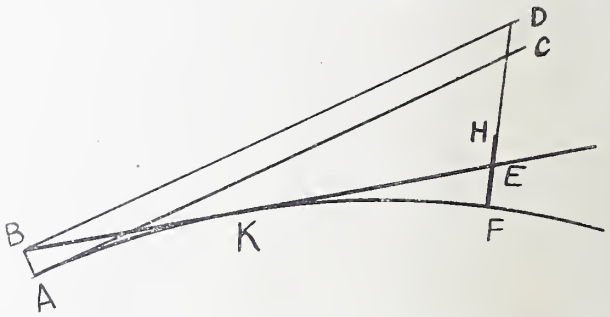
This is no doubt an example of the breaking down of the surface of old, and consequently brittle, glass, caused by strains set up between the particles occasionally observed, the strains in this case being no doubt increased by the excessive heating and subsequent cooling. The final result, however, was considerably coarser than that usually produced by hydrofluoric acid.

Yours, etc.,
THOS. J. WARD.

THE FLAT EARTH.

Sir,—May I point out that your contributor Mr. Clifton in his article on "Photography and the Flat Earth," in your last number, has made a mistake in his calculations. He finds that the top of a screen 15ft. high, should, on the globular theory of the earth's shape, be more than 9ft. below the horizon seen by an eye placed 2ft. above the water at a distance of six miles from the screen. It is shown below that under these circumstances an appreciable part of the screen would be visible above the horizon.

The fact upon which all such calculations are based is that if AF is an arc of a circle, short in length compared with



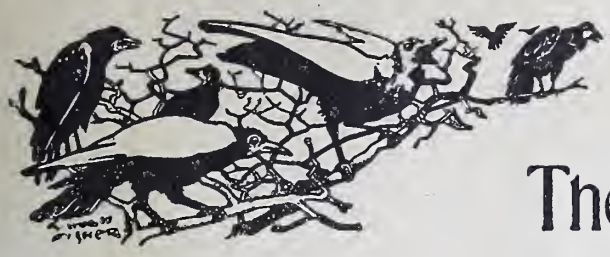
the diameter of the circle, and if the tangent to this circle at a point A meets the diameter through F, produced in C, then $AC \times AC = CF \times$ diameter of the circle.

The argument of your contributor seems to be as follows, assuming the diameter of the earth to be 8,000 miles. AC = six miles, and therefore $CF = \frac{6 \times 6}{8{,}000}$ mile = 23.76ft. Consequently, the parallel to AC through B, a point 2ft. above A, meets the plane of the screen in a point D, over 25ft. F, or more than 10ft. above the top of the screen. This is so far correct. The mistake lies in assuming that the horizon lies in the direction BD; the real direction is BK, the tangent to the circle throgh B. Suppose that BK produced meets the plane of the screen in E. First find the position of K. Since $BA = 2\text{ft.} = \frac{2}{5{,}280}$ mile, $BK \times BK = 8{,}000 \times \frac{2}{5{,}280}$, or BK = 1.74 miles. The whole length BE is six miles, so that KE is 4.26 miles long. This makes $EF = \frac{4.26 \times 4.26}{8{,}000}$ miles = 11.97ft., or over 3ft. of the screen would be above the horizon.

The white square photographed in fig. 2 appears to be the same size as that of the screen in fig. 1, so that we may suppose on examining fig. 3 that the object photographed is a square screen. We see at once that the third photograph confirms the results of the above calculation, since the length of the white patch is several times its height. If this stretch of water were flat, the white patch showing in this figure should be square, as the whole of it would be visible from any point above the horizon.

The statements in the last paragraph of the article are not justifiable.

Yours, etc.,
GLOBULARIST.



The Week's Meetings.

MONDAY, NOVEMBER 1ST.

South London P.S. "The Englishman's Home." G. H. Lovegrove.
Bradford P.S. "Glimpses in Birdland." T. G. Askew.
Wolverhampton P.S. "The Avon." H. Baker.
Preston C.C. General Meeting.
Bolton C.C. "Meaning of the Word 'Art.'" J. A. Grindrod.
Wallasey A.P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Glasgow & W. of S.A.P.A. "Autotype Carbon Printing." J. W. Downs.
Catford & Forest Hill P.S. "Sterescopic Photography."
Canterbury C.C. Kodak Lantern Leeture.
Stafford P.S. "Newest Printing Methods." Messrs. Griffins.
Leek P.S. Lantern Night.
Walsall P.S. "William Blake." E. J. Shaw.

TUESDAY, NOVEMBER 2ND.

Sheffield P.S. "Birds in the Garden." Rev. B. Butler.
Leeds P.S. "Preparing the Exhibition Print." T. Lee Syms.
Hackney P.S. "Combination Landscape Printing." B. C. Wickison.
Liberal Border City C.C. "Through Lake District with a Camera." J. Robson.
Saltburn C.C. "Tank Development." J. Prescott.
Glasgow S.P.A. "Bird Notes by the Way." H. W. Wilson.
Otley & D.C. & A.S. "Phosphate Paper." F. Fearnley.
Halifax C.C. "Birds of the Farne Islands." W. J. Forrest.
Fernhead W.G.P.S. Workers' Night.
Nelson P.S. "The Mounting of Prints.
Manchester A.P.S. "Lantern Slides." A. G. Thistleton.
St. Helen's C.C. "What can be done with a Hand Camera." C. P. Goerz.
Blackpool & Fylde P.S. "Modern Photographic Apparatus." R. Hesketh.
Nelson C.C. Print Evening.
Boston C.C. *Photography and Focus* Prize Slides.

WEDNESDAY, NOVEMBER 3RD.

Sale P.S. "Through the Low Countries." Messrs. Peddar and Pilkington.
Rochdale A.P.S. "Holiday Jaunts with the Camera." W. N. Wainwright.
G.E.R. Mech. Inst. Critique on 1908 Affiliation Prints.
Coventry P.C. "Afar in the Fatherland." Affiliation Lecture.
South Suburban P.S. "Flashlight Photography." F. J. Mortimer.
Grimsby & D.C.C. Meeting.
Croydon C.C. Lantern Evening.
Edinburgh P.S. "Silhouette Photography." A. H. Baird.
Woodford P.S. "Romance of Plant Life." E. M. Duncan.
Sheffield F.S.P.S. "Further Aids to Composition." W. Nell.
Darwen P.A. "From Paris through Chartres to Grenoble." Staley & Co.
Borough Poly. P.S. "In and Around St. Albans." F. C. Boyes.
Ilford P.S. Prize Slides.
Leicester & L.P.S. "The Italian Riviera." B. B. Dickinson.

THURSDAY, NOVEMBER 4TH.

Trent C.C. "Multiple Mounting." B. Wright.
Preston C.C. "P.O.P. & Printing Processes." C. Mantell.
Heaton & D.C.C. "Pictorial Composition." J. F. Slater.
Liverpool A.P.A. "Real Orthochromatism." S. E. Bottomley.
Brunswick C.C. "Mounting and Passe-partout Framing." C. D. Rose.
Richmond C.C. "Ensyna." Houghtons, Ltd.
Watford C.C. "The Yorkshire Coast."
Brighouse P.S. "Glimpses of Switzerland and Italy." Mrs. A. W. Whiteley.
Borough of Tynemouth P.S. "Enlarged Negative Making." E. Lee.
Hull P.S. "Experiments in Coloured Light." A. N. Somerscales.
Armley & Wortley P.S. "Elementary Principles of Art." A. Keighley.
Leicester Lit. & P.S. "Wild Birds and their Ways." D. H. and E. B. Miles.
Chelsea & D.P.S. "Japan." E. J. Horniman.
Rodley, Farsley C. & B.P.S. "Portraiture." H. Crossley.
Glasgow E.P.A. "Holiday on the Continent." A. B. Crawford.
Bolton C.C. "Control." T. Lee Syms.
Rugby P.S. "A Ramble Round Rome." G. H. Eyre.
Small Heath P.S. "Bromoil." R. S. Clarkson.
Burnley C.C. "The Craven Highlands." F. Whittaker.
Chelmsford P.S. *Photography and Focus* Prize Slides.

FRIDAY, NOVEMBER 5TH.

Bromley C.C. "Bromoil." C. H. Hewitt.
Sutton P.C. "Architectural Photography." A. P. Hoole.
Lincoln A.P.S. Competition—Architecture.
Plymouth P.S. "From Jerusalem to Patra." Rev. G. B. Berry.
Colne C.C. "Local Crosses." I. T. Marquis.
Birkenhead P.A. "Is it Possible to Save an Over-exposed Plate?"

MONDAY, NOVEMBER 8TH.

Attercliffe P.S. Annual Meeting.
Bradford P.S. "Photography and Art." Rev. H. W. Dick.
Marylebone C.C. "Trip through South Devon." E. Markwell.
Preston C.C. "In Western France." T. H. Greenall.
Walsall P.S. "Large Prints from Small Negatives." W. F. Slater.
Leeds C.C. "Rambles in Upper Wharfedale." T. Ryder.
Leek P.S. "Photographic Facts and Fallacies." Burroughs-Wellcome.
Sidcup C.C. "Newer Printing Processes." Messrs. Griffin.
Oxford C.C. Lantern Slides.
Bowes Park & D.P.S. "Printing." C. Willie.
Southampton C.C. Prize Slides.
Swansea C.C. *Photography and Focus* Prize Slides.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

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Six Months	3	3	Six Months ..	5	5
Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

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All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

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TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

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Special to "Photography and Focus."

About Margins.

By Angus N. Moffat.

THERE is one thing about the commercial mount with its India tint or embossed design which cannot be said for the plain piece of card or Nature paper, and that is that the user is in no doubt whereabouts on the card his print should be stuck. There is the place laid down for it, and clearly marked out by the manufacturer of the card, who dictates both size and location of the print, and the photographer has nothing more to do than to stick it there. It is this which has led to the "shop-mount" being so much decried by those photographers who seek, by giving individual treatment to every one of their prints, to make the very most of each.

When the photographer trims his print to suit the subject and not some stock mount, and starts to mount the print on a plain card, he has to ask himself whereabouts on that card his print should be placed.

"In the centre, of course," is the offhand reply which some expert technician would give; "anything else is an affectation," he may perhaps add. But this is much too sweeping an assertion, and it is safe to say that the mathematical centre of the mount is the one position which the print should never occupy. That is, as far as pictorial work is concerned. There is no reason why diagrams or records should not occupy the centre, unless their producer likes to put them elsewhere.

There is a curious optical illusion connected with the mounting of a print which anyone may witness for himself by placing the print exactly in the centre of the mount, measuring the space above and below it to make quite sure that these two margins are equal. If such a print is glanced at, it at once appears to have less margin below the print than above it; the picture, in other words, seems to have slipped down. When the question is deliberately studied, we may or may not recognise that this is not so, and that, as a matter of fact, the spaces above and below the print are equal. But they do not appear equal; and in the mounting of prints their appearance, and not what a foot rule can tell us, is what is of importance. This "slipped-down" effect is still more striking if there happens to be a title of any sort beneath the print on the mount.

No very satisfactory explanation of this phenomenon has been offered, but that need not trouble us. All we are concerned with here is the fact itself, and that is beyond dispute. To counterbalance this appearance, then, it is an almost invariable custom amongst photographers to place the print on the mount a little above the centre. How much above will depend upon circumstances. Ordinarily the best effect is obtained when the margin at the top is the same as at the sides, about one-third more being allowed below the print; but some photographers prefer to have less margin above than at the sides. The former is certainly better, when the print is a vertical one, and in this case the extent of mount below the print may be increased beyond the one-third just laid down, giving the picture something to stand on, as it were. With horizontal pictures, and particularly with those that are very wide in proportion to their height, the top margin may be reduced a little.



A Gleam. *By Hy. Marie.*

And here is to be noted another curious thing in connection with the appearance of these margins, and that is that when the space below the print is exactly double that above it, or double that at the sides, the effect is not a very agreeable one.

A somewhat similar feeling, but not to so great an extent, will be found to arise when the relationship of the width of one margin to that of the other is half as much again. In fact, it arises whenever the relation is a very simple one. For example, if we have a margin of one inch at the top and at the sides, a margin of two inches at the bottom is unsatisfactory, of an inch and a half, or of two inches and a half, is better, but an inch and a third or an inch and three-fifths, or any less simple relationship, is better still. This curious fact is still more noticeable when the print is being mounted on a series of mounts in the "American" or multiple fashion; and in such case a simple relationship between the width of the different mounts goes a long way to spoil the effect.

There is another very good reason, and this time an obvious one, for allowing more space on the mount below the print than elsewhere, and that is that when a mounted print is handled it is generally held by the lower part, if the mount is stiff enough to allow of this, and by providing more space at the bottom the print is not only better kept from chance finger-marks, but is also further from the hand, and so is seen better.

We sometimes see photographs which are mounted with more margin on one side than on the other; sometimes this is carried to such a pitch that the print is stuck right up in one corner of the mount. There is no æsthetic explanation for this eccentricity, and it is usually the result of affectation or a heedless desire for the unusual. The type on a page of print is generally placed, or imposed as the printer terms it, with more margin at the bottom than at the top, and with more at the outer edge than at the inner one; and when the mounted photographs are to be seen in a book this is a good rule to follow. That is to say, if the print is to be on a right-hand page when the book is open, a little more margin should be allowed on the right of the print than on the left, and *vice versâ*. A glance at the position of the type on a book by any of the leading publishers will show the extent to which this may be carried with advantage.

This is the only exception that can be made to the rule that the print should have an equal margin on both sides, without the photographer laying himself open to the charge of affectation, for here, as can be seen, there is a perfectly sound reason for the inequality.



The Bather. *By Thomas Bates Blow, F.L.S.*

To INCLUDE ONE'S SELF in a group is quite an easy affair, and needs nothing in the way of special apparatus that cannot be fixed up in a very few minutes. The writer wished to do this, and accomplished it quite successfully. The lens was fitted with a little cardboard cap, which in this case consisted of the lid of a pill box, blackened inside. It must be so loose a fit as merely to hang on the front of the lens, and should have a fine black silk thread attached to it, the slightest pull on which will bring the cap tumbling off the lens without shaking the camera. So much for starting the exposure. To cap the lens is equally easy. The focussing cloth is arranged on the top of the camera so that it will hang down right over the lens; a book may be placed on top of it to keep it in position, and then the hanging part is thrown lightly back over the book. A silk thread is attached to this also. When the exposure is complete, this second thread is pulled, and the focussing cloth falls down over the lens and covers it up quite well enough to allow the photographer to leave the group and cap it in the usual way. The threads may be taken direct to the group, as they will not show in the finished picture, so long as they are black and are not too coarse.



THE FOUNTAIN OF ST TREVISIAU, LANDIVISIAU, BRITTANY. BY J. W. STANLEY BARMESTER.

The original of this picture is No. 30 at the Exhibition of the Royal Photographic Society.

PERFECT PICTURES

PARIS

The discerning photographer in France very quickly appreciated the quality of the paper that was offered to him under the GEVAERT label, so that for the more effective supply of his requirements the Paris branch of Gevaert was opened in 1895, one year only after the founding of the firm.

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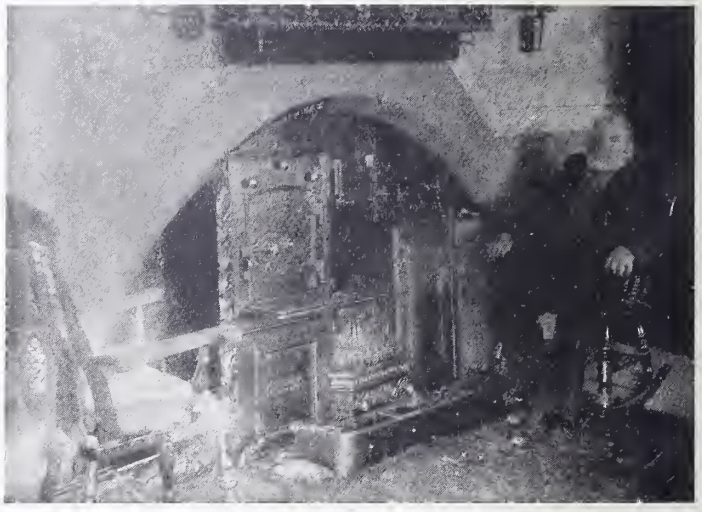
Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

OF the million or more amateur photographers known to exist in the British Isles probably not five thousand care two straws about that institution which they see alluded to in these and other pages as "The Linked Ring." Nevertheless, I want to draw a lesson this week from the 1909 Salon, though by the time these lines are in print it may have closed its doors. That is a pity, for I should have liked some of my readers to go and learn the lesson first-hand; however, if this can't be managed, you must take my word for the truth of what I am going to say.

You must know that at this year's Salon there is a whole wall devoted to a historical loan collection of the photographs of D. O. Hill—an artist who has been in his grave some fifty years or so. The photographs were taken in 1844, or thereabouts, on paper "plates," and printed on what may fairly be said to correspond to our modern P.O.P. And behold, these palpably "mechanical" photographs—"pure photography" because nothing else was feasible—taken between 1844 and 1847, literally "knock spots" off nine-tenths of the slap up-to-date gummy and oily and altogether twentieth-century photographs that



Interior of an Old Cottage.



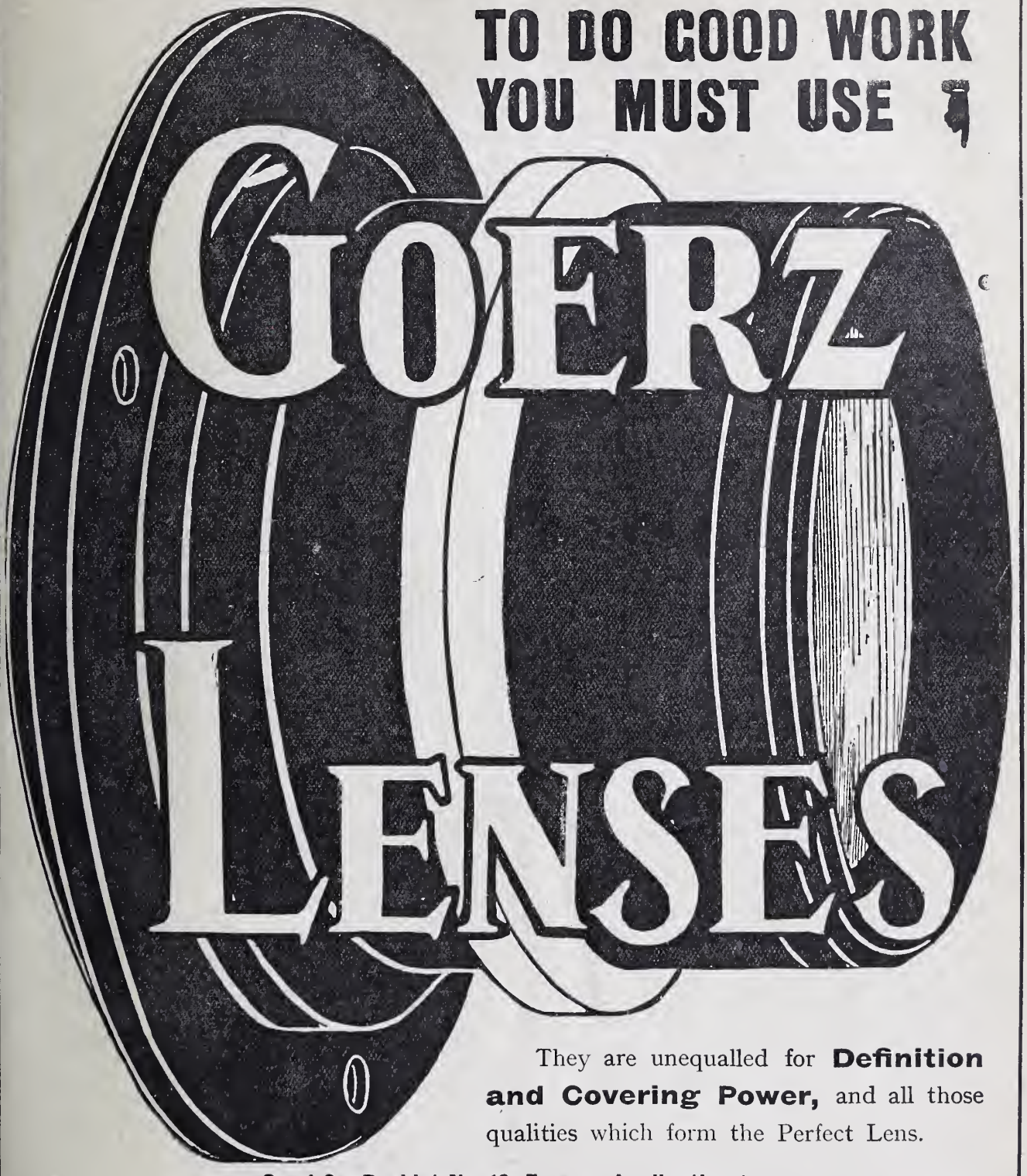
A Highland Farm Kitchen. *By William Lister.*

are to be seen hung all round the other three walls of the gallery.

I must not waste space describing work which the majority of my readers will never see; but believe me, these Hill prints are beautiful, and truly worthy the adjective artistic. And what they demonstrate is this: that in the hands of an artist there is no such thing as "mechanical photography." Give an artist a plate and a piece of P.O.P. and he will produce a work of art; while the would-be artist, who hasn't art in him, will need gum and tissue paper and heaven knows what, and at the end of it all won't have produced a picture worth a button.

I had seen but little of Hill's work before I saw the twenty-eight examples at the Salon, and I am bound to say that when I had studied these beautiful prints I could have sung a chant of joy. For I delight in pure photography, and latterly I had grown discouraged in preaching it, as I saw the crowd all running after brush-tricks. But Hill (if they will only look at him) serenely answers them. I don't say that he proves that brushwork photography is "inartistic." It would be silly to say that, for it all depends on

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of the door and concentrating on the old man—and letting us see his face—we might have got a more dignified result. It is hard to give an absolute verdict. At least, I can say that this is an uncommonly pretty piece of pure photography, and if I have tried to exhibit its faults, that is only because its merits need no indicating.

There is a naturalness which pleases me (at any rate in my present mood) in "Expectation." This is a true thing, truly seen. Technically, I think I should have liked a little more harshness—a rare demand. Or at any rate, I should have liked the complexion of the lady on the left differentiated somewhat more positively from the blouse, behind it, of the lady on the right. The pose and setting, however, strike me as excellent, and the placing of the two heads could scarcely be bettered. Why this piece of everyday life should beat the technically superior church door scene I do not know. But it does. It is better managed altogether, better concentrated, and more complete in itself.

Lantern Slide Competition. The Awards.

CLASS A. Landscape with figures.—Silver plaque: W. Baldwin, 10, Warehouse Lane, Foulridge, near Colne, Lancs. Bronze plaque: S. E. Ward, Hatfield, Grimsby Road, New Cleethorpes. Bronze medal: E. G. Hails, 83, Bath Street, South Shields. Certificates: A. W. Searley, Kingskerswell, S. Devon; A. Kinder, 7, Harrison Road, Fulwood, near Preston; T. B. Bullock, 14, Clifford Street, Colne, Lancs.; and J. B. Portway, jun., 91, The Avenue, W. Ealing, W.

Class B. Landscape without figures.—Silver plaque: J. J. Hartley, Craven Bank House, Colne, Lancs. Bronze plaque: A. W. Searley, Kingskerswell, S. Devon. Bronze medal: F. Johnson, 24, Athenæum Street, Plymouth. Certificates: F. Bradley, 1, Bath Street, Leek, Staffs.; T. Carlyle, 5, Bank Street, Paisley, N.B.; W. E. Parry, 3, Church Street, Bootle, Lancs.; and H. Creighton Beckett, 44, Edith Road, Peckham, S.E.

Class C. Architecture.—Silver plaque: Rev. H. O. Fenton, 169, Woolstone Road, Forest Hill, S.E. Bronze plaque: E. R. Bull, 7, Ballina Street, Honor Oak Park, S.E. Bronze medal: A. Roffey, 586, Coventry Road, Birmingham. Certificates: W. R. Gunton, 221, St. Albans Road, Watford; Wm. C. Wilson, Arbutus, Booterstown Avenue, Co. Dublin; P. W. Morris, 52, Chalk Hill, Bushey; and F. Bradley, 1, Bath Street, Leek, Staffs.

Class D. Portraits and figure subjects.—Silver plaque: A. G. Thistleton, Heath Mount, Oldham Road, Newton Heath, Manchester. Bronze plaque: Wm. McLean, 69, Clifton Park Avenue, Belfast. Bronze medal: J. Clegg, 34, Birkdale Street, Cheetham Hill, Manchester. Certificates: H. G. Drake-Brockman, Cleveland Asylum, Middlesbrough; Clarence Ponting, 66, Nearcliffe Road, Manningham, Bradford; J. B. Portway, jun., 91, The Avenue, W. Ealing, W.; and T. Bryans, 18, Stranwillis Park, Belfast.

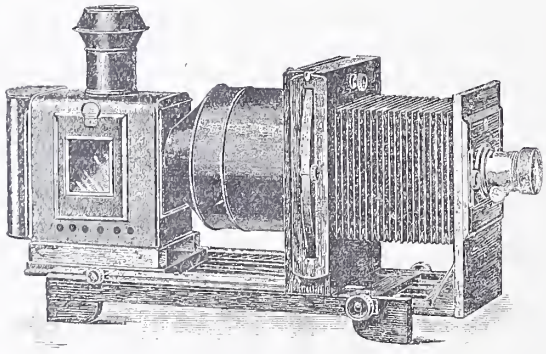
Class E. Still life.—Silver plaque: P. W. Morris, 52, Chalk Hill, Bushey. Bronze plaque: S. E. Ward, Hatfield, Grimsby Road, New Cleethorpes. Bronze medal: Wm. G. Fryer, 28, Spring Bank Road, Chesterfield. Certificates: F. A. Tinker, Kennywood, 43, Firth Park Road, Sheffield; T. G. Hibbert, 38, Sheldon Road, Sheffield; Rev. R. W. Berry, Knowle Green, near Longside, Preston; and S. E. Ward, Hatfield, Grimsby Road, New Cleethorpes.

Class F. Scientific subjects.—Silver plaque: A. Taylor, Springwood, Whalley, Lancs. Bronze plaque: J. A. Lovegrove, 33, Westbury Road, New Southgate, N. Bronze medal: F. W. Chipps, 201, Castelnau, Barnes, S.W. Certificates: A. Taylor, Springwood, Whalley, Lancs.; J. H. Taylor, Little Trinity, Cambridge; F. G. Curtis, 68b, Sandgate Road, Folkestone; Wm. Hill, 6, New Street, Leek, Staffs.

Enlargers by the Midland Camera Company.

THE Midland Camera Co., Ltd., of Slaney Street, Birmingham, makes a whole series of enlargers intended to meet the wishes and the pockets of amateurs of all classes. Each year the designs are modified and improved, so as to provide more and more facilities for the same money or to reduce the cost of the apparatus; so that, although the descriptive denomination is the same, the actual apparatus is an advance on its predecessors.

Before dealing seriatim with the new introductions, we should like to clear up a little misunderstanding under which many of our readers appear to labour, and that is that a simple enlarger costing, say, fifty shillings, cannot be expected to give as "good" an enlargement as one costing five or ten pounds. The extra cost, when the size is the same, provides conveniences and adjustments which it is extremely pleasant to have; but the cheapest enlarger on the company's list is just as capable of giving a perfect enlargement as the most costly one, and efficiency is in no case sacrificed to economy in production.



No. 3 Enlarger.

The cheapest series is the No. 0 enlarger, which sells, complete with lens in rack and pinion mount, 5½in. condenser for quarter-plate negatives, for £2 12s. 6d., larger sizes in proportion. This enlarger we have recently had an opportunity of examining very carefully, and were much struck by the neatness of its construction and the finish of its workmanship. It is in every way a sound and serviceable instrument. The body can be slid backwards and forwards to adjust the light at the correct distance from the condenser, the front being adjustable by rack and pinion. The woodwork is of mahogany, the lantern body large and well ventilated, the condenser plano-convex. The carrier is reversible, and the condenser carried on a board which allows it to be readily detached. The lantern can be fitted to take an incandescent gas burner at a cost of five shillings.

Those who can afford to pay more than the price of the No. 0 will find in the No. 3 enlarger of this firm (shown in our illustration) an apparatus with a variety of adjustments which greatly facilitate work. The negative can be swung and tilted in all directions, as may be required, and indicators outside show at once the extent of the departure from the ordinary position in each case. The movement of the body is effected by rack and pinion, as is that of the front, and the enlarger has also a rising front. The quarter-plate No. 3 enlarger, without lens, sells at £3 5s.; with an Aldis anastigmat its price is £4 18s. For an extra outlay of £1 2s. 6d. the enlarger is fitted with an extra condenser, carrier, and cone, turning it at once into a lantern for projecting slides. The woodwork of this apparatus is of oak.

Other series that may be mentioned are the No. 4, which is made in half-plate size only, and should prove a very suitable apparatus for photographic society use; and the No. 6, which is the most luxurious kind of enlarger that the most fastidious could desire. The Nos. 5 and 7 are made to take the user's camera in front; and the company also make an enlarging trestle taking the lantern and an easel. These and other enlarging apparatus will all be found illustrated and described in a little booklet, "Enlargers and Enlarging," which the company has recently issued, and which it will be pleased to send to any reader of *Photography and Focus* sending a postcard for it.



"The Death of Summer."

Negative ——

"WELLINGTON"

Speedy Portrait Plate.

Half-tone from a Print on

"Wellington" Carbon Bromide.



"The time has come, the Walrus said, to talk of many things."

AT the first opportunity I intend carefully collecting all my cloud negatives with a view to their special preservation and I shall lose no chance that may present itself of adding good skies to my store. In the near future they will be valuable. It will soon be practically impossible to obtain a print of a sky free from aviatory blemishes. Before we know where we are the heavens will be perennially dotted over with monoplanes, biplanes, triplanes, dirigible and non-dirigible balloons; and aviators will fall as thick as hailstones in a thunder shower. To-morrow may well turn out to be the one-time apocryphal day when the pigs will begin to fly. There is no valid reason why the little pig who goes to market should not accomplish the journey in a Blériot.

* * *

There is, however, the chance that all our present sky negatives may be thrown out of use except as curiosities and relics of a bygone day. We may be as severely criticised for showing a sky free from fliers as we once were for having skyless landscapes. The arrangement of these aerial apparitions may always be considered as an important item in the composition. A print may be damned, in a Pickwickian sense, because the aeroplanes are too scattered, instead of falling into pleasing lines and groups; while another photograph may be warmly commended by the critics on account of the happy manner in which a falling aviator and a ton of old iron in mid-air form a pleasing accent and add point to the funeral procession in the middle distance. It may be quite a mistake to suppose that a flying bungalow with bicycle wheels will detract from the value of our future landscapes. Such may come to be considered an essential. Had there been photographers in the days when the art of navigation was in its extreme infancy they would no doubt have lamented the fact that all their sea pieces and river scenes would henceforth be marred by the inclusion of craft. We know now that such is not the case, and we look upon a print of an expanse of empty sea as a lonesome fraud.

* * *

A friend of mine said the other day that he considered that photography had been invented two or three hundred years too late. Maybe so, but it is not my fault. Had I lived then I should probably have invented it. But I pointed out that present-day photographs would be as interesting to posterity as photographs of the Elizabethan era would be to us. In a short time every man, woman, and child will fly as naturally as they eat, and then how strange will seem to them our photographs of streets, trains, ships, horsed vehicles, and people standing and walking.

* * *

Even as I write there are in this country two great crowds of people, with eyes and mouths at full aperture, watching the soaring and swooping of varied agglomerations of bamboo, canvas, motor, and man. Plates in vast numbers are being exposed, with a hopefulness that will certainly not be justified in the results. Now and then a passable result may be secured by accident, and with a little luck (bad) there is always the chance of one of the flying men arriving suddenly in that land where, as I saw it picturesquely expressed, every man is his own aeroplane. Such an event causes the shutters to click like platoon firing.

* * *

Already articles are appearing specially dealing with the photography of aeroplanes, and many a brain-racked photographic journalist blesses the first man who flew. I have studied some of these directions myself, and I gather that this special branch of work is particularly easy, that is to say, extremely difficult. The chief essentials for the work appear to be an aeroplane in flight and a camera in hand, although both these have been dispensed with in many cases by the substitution of a paint brush and a fully-fledged imagination. If the genuine thing is attempted I learn that a focal plane shutter is an absolute necessity, although any old shutter will do; the lens must be of long focus, but if it is neither long nor medium it may well be short. No stop smaller than f/3 should be thought of, though excellent results may be obtained by stopping down to f/16 or smaller. Unless the plates are backed they should be unbacked, but the only satisfactory plates are films. Should the print present the aeroplane as perfectly sharp and distinct it gives no suggestion of motion, and should be torn up, but if the image is fuzzy it suggests so much motion that the print should be burnt. This indicates what the correct exposure should be. To photograph the machine at a distance is madness, to wait for it to come to close quarters is suicidal.

* * *

Careful mastery of these plain instructions should enable any photographer to succeed who does not fail. It is to be hoped that future writers on the subject will not complicate its present charming simplicity by contradictory statements and unnecessary insistence on difficulties that do not exist.

* * *

There is another aspect of the case. Not only must we consider the photography of flyists from *terra firma*, but also photography of *terra firma* by the flyists. And here we are brought face to face with serious and disquieting facts. I have ascertained from the columns of a half-penny scarepaper that "Count Zeppelin has achieved a feat which will spread a panic in England and France." How dare he? True, the feat was achieved some time ago, and the panic is not as yet preventing us from sleeping of nights, although I cannot answer for our poor Gallic friends. It seems that the airship of the malignant Zeppy can now flap around from Cologne to Portsmouth, locate London accurately, take a peep at Dover, and get home to Cologne in time for supper with a complete set of photographs. These photographs are to be finished *en route*, from exposure to printing, by a special staff of photographers slopping about with developers and hanging out printing frames.

* * *

This is really dreadful, because it will be realised at once that to obtain a photograph of London is equivalent to the complete destruction of that village, while a picture from mid-air of the Channel Fleet is tantamount to the annihilation of every single vessel. It follows that if we are rational beings we shall not waste our time footling around with our little cameras taking photographs of aeroplanes, but shall evolve a gun that shall jolt every one of them smack up into the Milky Way.

The Walrus.

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The Storage of Negatives.

Negatives are fairly entitled to be called permanent, but if kept improperly they may change: two curious cases of alteration: the action of the air: how to store negatives properly.

WHATEVER may be said or thought about the permanence of different kinds of prints, the photographer is apt to look upon the properly fixed and properly washed negatives as free from all risk of change. There is a great deal to justify his confidence, and, in spite of alterations which have been detected in astronomical negatives, where the very faint images of some stars have been found to disappear in time, there is no doubt that in ordinary circumstances negatives on gelatine dry plates remain practically unaltered for a very great number of years; in fact, they are fairly entitled to be termed permanent.

While this is true of negatives kept without any very special precautions, such as collodionising and varnishing — processes which, if not absolutely obsolete, are at least obsolescent—certain recent experiences both of our own and of our readers show that it does not do to place too absolute a reliance upon their unalterability to the extent of omitting some of the simplest precautions.

MEMORANDA *for the week.*

This space is reserved for the announcements of free offers by manufacturers or dealers which we advise our readers to note.

Lettering Setting-off on the Plate.

For example, a negative lies before us as we write on the film of which there is clearly to be read the word "photography" and other lettering, part, apparently, of an advertisement of somebody's plates. The reader who sends it to us writes: "I should be obliged if you could inform me how the lettering has got on the negative. You will notice it in the foreground, and, as far as I can see, there is no means of removing it. I have always placed printed paper between my negatives, storing them in the boxes the plates are bought in. I can hardly think the defect has come merely from this, as it is the first case of the sort I have ever had in over twenty-five years' experience. I have always understood plates were insensitive after they have been fixed and dried. The lettering has appeared only recently, although the negative is quite an old one. If the trouble is from the printed paper, it is easily obviated by using plain paper, but I do not wish to have the trouble of changing a thousand or more dividing papers till I know there is a possibility of damage from this cause."

That the printing has in some way set off from the paper there can be no doubt at all; but the nature of the action is not easily explained. The image of the print goes right down into the film, just like the original image on the negative, and on applying Baskett's reducer — an infallible remedy for all surface markings—the two are reduced together, and by the time the whole of the print is removed practically the whole of the other image is removed also. As the lettering is darker than the rest of the plate, it is clearly not a fading that has been caused by the printer's ink; in fact, we are more inclined to think that it is the rest of the negative that has faded somewhat, and that the action of the printing ink on the paper has been to delay the fading in those parts.

Printed Paper is Most Unsuitable.

Be that as it may, there can be no doubt that printed paper is a very bad material to put against negatives which may be wanted again at some future date, and our correspondent would do well, we think, to get a quire or two of good, thin Swedish filtering paper, cut it up into pieces of suitable size, and change all his printed paper for that before any more harm is done.

It may be asked, Why use filter paper, which has to be got specially for the purpose from some dealer in chemical apparatus? Why will not ordinary white paper do? Well, ordinary white paper will do, just as pieces of newspaper will do, and in ninety-nine cases out of a hundred no harm results from the use of either. But in that hundredth case harm *does* result; the negative is badly injured—may be ruined—and that particular negative is almost sure to be one that we would much prefer should not be ruined.

A Curious Experience with Plain Paper.

A curious experience of our own during the last few days is worth recording. All our negatives (several thousands) are stored in plate boxes, and between the films of each two is placed a piece of plain white "bank post" paper, which we get in quantity, all ready cut to size. On turning out a box of negatives so stored, which had not been looked at for eight or ten years at least, one of them had undergone a most strange metamorphosis. The paper had not laid quite squarely upon it, and there was a strip along one side about a quarter of an inch wide, which the paper had not touched. That strip was quite unaltered, as were all the other negatives in the box; but the rest of the image had been completely bleached through, and was a pearly white on both sides, showing up excellently as a positive when held so that what was behind it was quite dark. Something in the paper had very obviously led to this result, but, whatever it was, it was limited to that one piece, which was to the eye precisely similar to all the other pieces in the box.

Best to use Pure Paper.

It will be seen from this, then, that it is very desirable when negatives are to be kept in contact with paper to make sure that that paper is as far as possible chemically pure. If they are not of any great importance, and are only kept from a reluctance to throw away anything from which a print might possibly be wanted one day, no doubt ordinary plain white paper is good enough for the purpose; but printed paper, such as old newspaper, is certainly to be avoided.

When negatives are to be put aside for a long time, and are not to be turned over at intervals, it is better to avoid all risks of this kind by putting nothing whatever between them, merely arranging them in pairs with the film sides of each two in contact, taking care, of course, that there is no dirt or grit between them to lead to scratches. Such a method of storage not only ensures them from accidental contact with something that may be impure, but the close contact between the films protects them to a great extent from

The Action of the Air,

and when negatives are to be kept for a long while this is very desirable. It was not so important when all negatives were varnished, as was compulsory in the wet plate days, and was very generally the case when collodion began to give way to gelatine. The varnish kept the air from the film, and negatives could be stored without reference to atmospheric action.

Grooved boxes used to be used very largely for storing negatives. Ordinary unvarnished negatives, such as most of those now made, do not keep at all well in grooved boxes, and if the contents of a box which has been put aside for a few years are examined it will often be found that the negatives have altered considerably in appearance, the contrasts being lessened, the whole negative paler, and metallic markings appearing at the edges. That these changes are favoured by exposure to the air there seems to be no room for doubt, though the negative, from imperfect fixing or insufficient washing, was probably left with an inherent tendency to alteration.

We have only written this to put our readers on their guard against causes of deterioration, which hitherto they may not have suspected, and in no way with the idea of creating a scare as to their keeping properties—a subject on which we have no doubts at all. Properly fixed, adequately washed, and kept where at least they will not get damp, we believe that ordinary negatives piled one on top of another in the boxes in which the plates were originally supplied will keep unaltered for an almost indefinite period.

R.C.B.



Pyro Stain.

It is probably the extended knowledge of photography that is responsible for the selection of a solution of alkaline pyro by the Suffragettes at the Bermondsey election, as the means of defacing the ballot papers. Every photographer who has used a pyro developer knows that it has a tendency to stain the fingers; but, owing to the introduction of sulphite over a quarter of a century ago as a preventive of stain, and its now universal use for that purpose, we are fortunately ignorant of the full power of pyro in that direction. A weak solution of alkaline pyro has been suggested as a hair dye, and one well-known figure in photographic circles a few years ago was currently believed to use his pyro-ammonia developer on his beard; but that no doubt was a calumny. With a sufficiency of sulphite it is not difficult to avoid pyro stain; but there are objections to the use of a very large quantity of sulphite in a developer, and it is better therefore to have just enough to prevent staining of the plate, and to rely upon keeping the fingers out of the solution as much as possible, to prevent staining them. In developers in which sodium carbonate is the alkali, the quantity of sulphite should not exceed greatly, if at all, that of the carbonate.

No. 35, Russell Square.

The Royal Photographic Society has now fairly well settled down in its new quarters on the opposite side of Russell Square, and there is no question that they are an improvement on those it has left. The meeting room—occupied at present by an excellent little

exhibition of the work of Mr. Arthur Marshall, of Nottingham—is without that exasperating right angle. the library is larger, and the office accommodation more convenient. The dark rooms, etc., are in the basement, and at the back there is a small studio (not yet fitted up) with a north light. The conveniences for members are beyond question, and the fact that they can all be obtained for a guinea a year makes the R.P.S. a very serious competitor of any photographic club in the neighbourhood, should one be started.

A Trade Exhibition in the Spring.

The prospectus of the exhibition which Mr. Arthur C. Brookes proposes to hold at the Horticultural Hall next spring has now been issued; and we learn from it that the dates will be from April 9th to 16th inclusive, the hours being from noon until 10 p.m. daily. The main body of the hall allows for the erection of some sixty-five stands for trade exhibits, while there is a space of forty-five by twenty-five feet which is set aside for "novel photographic and pictorial exhibits." The prospectus states that every effort will be made to attract the general public, "representatives of the daily press will receive special attention," and the devices which are held out as a draw for the public include "spirit photography exposed," striking natural history photographs, record and survey work, photography in criminology, etc. The present circular is intended for trade exhibitors, and any who have not yet got a copy would do well to get into communication with Mr. Brookes, whose address is 15, Harp Alley, Farringdon Street, London, E.C., at once. The time of the year is a good one, just as the photographic season will be opening, and the exhibition we hope will give a much-needed fillip to photographic business.

Good Enough.

We are not advocates of careless or slipshod working in photography, as our readers can well bear out; but, on the other hand, we do not believe in recommending the adoption of needless refinements. A reader told us recently that he was buying anhydrous sodium sulphite at over five shillings a pound for use in developer. It is quite possible that he was getting full value, as far as the purity of the product is concerned, as there is an exceptionally pure grade of this salt made for certain non-photographic purposes; but he was certainly getting no better results in his photography than he would have got with a fair sample of sulphite at a tenth of that price. A similar remark may be made as to distilled water. Formulæ often mention "distilled water"—we may have sinned in this respect ourselves—when there is no need whatever for anything purer than ordinary drinking water. A photographer has no need whatever for distilled water. It is possible to work all the ordinary processes (including autochrome, gold, or platinum toning, etc.) with no other water than that which is supplied in every town or drawn from the well in the country, without any ill effects whatever; and the mention of distilled water in a formula is therefore only likely to deter the photographer who does not happen to have a supply Cleanliness in photography is all-important; but the cleanliness which leads to the employment of distilled water is cleanliness carried much farther than is necessary.

The Permanence of the Autochrome.

When the notoriously fleeting character of many of the coal-tar products is considered, and the limitations imposed upon the inventors by the problem of successful colour rendering are borne in mind, it is indeed wonderful that so little has been heard of the fading of autochromes. We have still in our possession a number of the very first autochromes made in this country. They have been freely exposed to light, some of them to all the sunlight we had, for months on end, yet we can detect no alteration in the colours. If there were any it should show itself very quickly, not as a general lightening or darkening, but as an incorrectness of the colour rendering; since it is most improbable that the change, if there were one, would proceed equally with all three dyes. But we cannot trace the slightest sign of such an alteration; and so far only two cases of change have been recorded, both clearly abnormal and not in the nature of fading. In one the whole picture is said to have lost its colour; due in all probability to the actual shifting of the photographic image on the screen plate. If the film is partly stripped from an autochrome, however carefully we may replace it, the colour is gone, from our inability to put the photographic image down once more in perfect register with the irregular starch grains. The other case is recorded in the current issue of the "Journal of the Photographic Society of India," and in this "the whole plate has developed a greenish tinge." As it is the green dye which is most readily soluble in water, this points to some action of damp; probably the plate has been exposed, perhaps more than once, to a heavy deposit of moisture. In any case, both seem to be quite out of the ordinary, and to point that with reasonable care in the keeping autochromes should show no signs of change after at least a couple of years.

Some of the Contents of Next Week's Issue.

THE subjects dealt with next week will be of a very varied character. They will include Lantern Exhibitions at Home on a small scale, which are dealt with in the leading article, a critical causerie upon the photography of objects in motion, and a dark room dialogue upon enlarging apparatus. Photographic dishes, a quick printing apparatus for making postcards, the ventilation of the dark room, and making bromide prints in two colours are other topics that will be discussed in what promises to be an exceptionally strong issue; while the principal pictures, printed in two colours on art paper, will be selected from the exhibition of the Blackburn and District Camera Club, that will then be open.

QUESTIONS & REPLIES



REGULATIONS—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

BROWNIE (Eastbourne).—F/16.

E. H. COULSON (Werrington).—One is as permanent as the other.

F.R.T. (Bradford).—The exposures are in the ratio of 1, 2, 4, and 8.

H.A.W. (Broadstairs)—We have published all the information we have received.

C.T. (Fencehouses)—Exposures should not be altered. They are said to be faster, but we have not noticed it.

B. ROBERTS (Bristol).—You appear to have overlooked our leading article of a fortnight ago, which answers your question in full.

A. C. TOLPUTT (Thornton Heath).—Thanks for the report. We cannot use it as it stands, but have sent it on to "the inventive genius" referred to.

MISS E. SCOTT ANDERSON (Shanklin).—This is a question we should think a lady could answer better than ourselves; we are sorry to say it is beyond us altogether.

CONSTANT READER (Leeds).—The only conditions under which we can criticise prints are those stated above. We are very sorry, but this is a rule to which we can make no exception.

H. KIRK Mortlake). — A seven inch negative lens will do what you require; but if you only want to use it for projection purposes you will probably find it easier and more satisfactory to buy a new projection lens.

V. RADCLIFFE (Chelsea).—The result was a foregone conclusion. The process is not applicable to prints which have not been fully developed out, and we do not see how you are to get what you want with it at all.

W.H.H. (Brondesbury)—The fault is in all probability due to the poor quality of the lens. If you fit it with a smaller stop it will improve it, but this may reduce the light so much as to make it impossible, in which case there is nothing for it but to get a better lens.

P.C.D. (Northants).—A roller blind shutter with a time exposure valve would be as near what you require as anything you could get; but you realise that it would not allow the camera to be used as a reflex instrument. It would hardly be worth while getting another lens, we think.

E. MADER (Weymouth).—There is nothing the matter with the camera which, in the hands of anyone who knows enough of photography to take photographs at all, will be found to work well. Whether you ought to "expect to get good negatives" must depend on yourself, not on the instrument, which is a good one of its class.

NEGATIVE (Manchester).—Our opinion is that the defect is due to the surface of one plate having been in contact with the backing of another, apparently with some degree of pressure. The ragged edge might be due to the backing not having entirely covered the plate that was next it, or to the interposition of a piece of paper or something similar.

F. B. SMITH (Plumstead).—We do not know why the amidol formula was abandoned. Mr. Sterry is in Australia, and we have printed all the details he has sent. Nor are we able to explain the blisters; the formalin would tend to prevent rather than to encourage them. When blisters make their appearance in the first washing water they are usually attributed to either the hypo bath being too strong, or to a wide difference in temperature between the different solutions.

G. EGERTON (Clapham).—The stop *may be* f/8 for all that. Fix up a card with a pinhole in it exactly the focal length of the lens in front of it, measuring from the stop, and in a room with only artificial light in it, hold a candle behind that pinhole while there is a plate in the camera. The camera extension may be 8in., but a little more or less does not matter. The candle should be held behind the pinhole for about a quarter of a minute. On developing the plate you will find on it a circular black spot, which will be the size of the true or effective aperture, and should be one-eighth of the focus, if the lens were used at f/8 for the experiment.

C. F. ERNEST (Wigan).—Twice as much will be required.

COIN (Halifax).—There is no reason why a smaller stop than f/8 should be used.

N.A.P. (Dorrington)—There is no likelihood of what you anticipate. We largely share your opinions.

A.J.C. (Twickenham)—For reproduction purposes there is nothing better than well toned p.o.p. with a good gloss.

PHOTOMICRO (Hoylake).—The definition would be much improved by the use of the screen and plate. It is very good as it is.

ASTRO (Bishop's Stortford).—"The English Mechanic" and "Knowledge" are two of the best papers for an amateur astronomer.

S. PINEWOOD (Wokingham). — You do not say what paper you use; and in any case we do not know a "safe and reliable" one. Why not use what the maker recommends?

F. CAMBS (Fulbourne).—An R.R. lens of about 9in. focus would do what you want very well; it would be well not to get a longer focus, or you might find the extension would limit you at times.

A.O. (Whitehaven).—You will not get it repaired by the makers, who are only represented in this country by agents. Your best plan would be to send it to Mr. A. B. Allen, 20, Endell Street, London, W.C.

G.E.T. (Whitby). — Quite enough was given for your purpose; the mistake is in the way it was used, but we could not be more definite without knowing much more of the condition than you can state in a letter.

D. O. JONES (Newquay).—An acid fixing bath is to be preferred for p.o.p. prints which have been developed. They should be rinsed in two or three changes of water between development and fixing. Thanks for the hints, which we will use.

J. A. HAINES (Peterhead). — The drawback is always more or less present, and is not to be avoided entirely; but the use of a sensitising bath containing citric acid and ammonia, on the lines laid down by Mr. H. W. Bennett, will reduce it to a minimum.

A. R. BARRETT (Leyton).—If there is nothing in between the reflector and the negative to diffuse the light, white card or paper must be used. If some little distance from the negative there is a ground glass, the reflector may be a mirror. The quality of the results is in no way affected by the arrangement, which will give just as good work as any other.

J.J. (Wateringbury)—The size of the plate has nothing to do with the exposure, and you will therefore have to give the quarter-plate the same exposure as the half-plate, provided the lens and stop remain unaltered. You will find most of your other queries answered in "The Hand Camera," by Wastell and Bayley, price 1s. nett, or post free from our publishers 1s. 2d. See rule 3 above.

G. Y. DOX (Grimsby).—If you wish to mount it with its face to the glass, the print should be hardened in a formalin or alum bath of the usual kind, and then after washing should be immersed, with the glass, in a three per cent. solution of gelatine just warm, withdrawn, squeegeed into contact, and allowed to dry. When dry, the face of the glass may be cleaned from surplus gelatine.

ART (Irthlingborough).—In spite of the fading it will be best to copy it on an ordinary plate. Owing to the yellow colour, they generally copy far better than they look. Only when the best possible copy has been got, in case of accidents, is it wise to meddle with the original print. This may then be placed in a five per cent. solution of alum for two or three hours, and then in several changes of water, until it can be stripped easily from the mount. After again washing in three or four changes, it is bleached in a saturated solution of mercuric chloride and blackened in very dilute ammonia, just as a negative intensified.

S.E.B. (Brighton).—Your letter has been sent on to our contributor.

W. C. ROBSON (Walsall).—We have sent your postcard on to Messrs. Griffin.

WIDE ANGLE (Liverpool).—The Zeiss Protar, Series V., No. 1, with a focus of 3¼in.

GALOHEAL GLASS (Muswell Hill).—The method is described on page 386 this week.

ANXIOUS (Windsor).—The specks are due to air-bells from faulty squeegeeing. Have plenty of water under the print, lower it on to the plate by one corner, and squeegee uniformly, firmly, but not violently.

G. BRADLEY (E. Greenwich).—Our own preference is for the No. 2 type; but both work very well. There is no need to trouble about ventilation with either: there is not so much heat, and the camera is not so near the illuminant.

FLO (Swaffham).—You do not comply with our rules as above; but even if you did we could not help you. The transfers are in no sense photographic, and we have no data on which to base an estimate of your business prospects with them.

T.K.A. (Glasgow)—The Press Reflex Camera, made by Shew and Co., 88, Newman Street, Oxford Street London W., and the 6in. lens, Series I. Euryplan of Staley and Co., 19, Thavies Inn. London, E.C., answer your requirements.

E.J.L. (Freshwater, I.W.).—Theoretically, the exposure might be less, as you suggest; but in actual practice it is better not to make any allowance for the difference, as the speeds given by the meter are those for the focal-plane and not for the less efficient shutter.

MONORAIL (Egremont).—Lamp black is mixed up with a little gold size to form a thick cream, and this is then diluted with turpentine until of the right consistence for application, which is best found by trial. Too little gold size allows the black to rub off; too much makes it dry glossy.

A.H.F. (Truro).—If the stains are very bad nothing will remove them. A good plan is to put the negative for an hour or two in an ordinary combined toning and fixing bath, such as is used for p.o.p. If anything will remove them that will. If they remain, they are incurable. There is no need to leave it in as long, if the stains disappear sooner. It is then washed and dried.

TOXO (Sloane Court, S.W.).—Square the focus of the lens in inches, multiply by 250, and divide by the F number of the stop. This will give you the hyperfocal distance. To obtain the nearest point multiply the hyperfocal distance by the distance focussed on, and divide by the sum of the hyperfocal distance and the distance focussed on, or divide by the difference to obtain the farthest point.

M. A. GIBSON (Liverpool).—You do not enclose the coupon; please read the rules carefully before enquiring again. The sheet had best go to a regular lantern supply house to be done up, they have unpublished methods that are better than any of those generally known. All three makes named are first-rate, and there is little or nothing to choose between them. A beginner does well to start with black tone slides on rapid lantern plates, only using the slow and going in for warm tones when he has required a little experience.

E. HAWKS (Leeds).—Do you seriously suggest that the use of an astronomical telescope, by inverting the image of the distant screen, would render the bottom edge as the top and so bring it into the range of vision. We presume it would at the same time make the top edge invisible! There is, we believe, not the slightest room for doubt that the earth is round; but it is hardly to be maintained by such suggestions as this. You are also in error as to refraction. There would not *of necessity* be any refraction in such a case, as the rays may be in uniformly dense air all the time; it is in no sense parallel with the case of the sun, which is made visible by refraction when actually below the horizon.



THE ATTENDANCES AT THE ROYAL Photographic Society's exhibition show a considerable falling off this year.

COBURN'S LONDON PICTURES. The originals of the photogravures in the book which we reviewed in last week's issue have been on view at the Goupil Gallery, Regent Street, London, W.

MR. SNOWDEN WARD is retiring from the editorship of the "Photographic Monthly" at the end of the year. His successor will be Mr. Godbold, who has for some years looked after the advertisement side of that publication.

THE R.P.S. AS A CLUB. It is an interesting confirmation of our views as to the tendency to make the Royal Photographic Society more and more of a club, that the "Westminster Gazette" points out that there is not now so much chance of a new club being a success, as the R.P.S. has left "less room for a competitor."

RETIREMENT OF MR. W. R. BLAND. Mr. Bland, who has for forty-three years been connected with the Union of London and Smith's Bank, is retiring from his position as manager of the Derby branch. He will be followed in his retirement by the good wishes of many of his photographic friends, and will, we trust, be able to give more time to his hobby.

A ONE MAN SHOW AT EDINBURGH is now open, free of charge, and will remain open until the 13th inst., daily from 10 a.m. to 10 p.m., except on the 10th, when it will close at 6 p.m. The work is that of Mr. Moffat, several of whose fine pictures have been reproduced in our pages in the past, and the place the Hall of the Edinburgh Photographic Society, at 38, Castle Street.

CHANGES OF SECRETARIES. The following new secretaries are given in "The Secretaries' Letter" of the Scottish Photographic Federation: St. George's Co-Op. Society C.C.—W. Pettigrew, 8, Buchanan Street, Partick. Cowlairs Co-Op. C.C.—S. J. Moreland. Dumbarton Co-Op. C.C.—R. W. Parnell, 109, West Bridgend, Dumbarton. Kinning Park Co-Op. C.C.—Hugh Topping, 20, Elizabeth Street, Ibrox, Glasgow.

AN INTER-CLUB COMPETITION entered by thirteen photographic societies within a radius of eighteen miles has just been judged by Mr. F. M. Sutcliffe. The award is a challenge shield presented by Mr. John Toulmin, of Preston. For the first year it will be held by the Blackburn and District Camera Club. The second place was taken by the Darwen Photographic Society, and the third by the Nelson Camera Club.

THE STOCKPORT PHOTOGRAPHIC SOCIETY'S honorary secretary is now Mr. Allen Bann, of 120, Chatham Street, Stockport.

A MEMBERS' EXHIBITION is to be held by the Glasgow and West of Scotland Amateur Photographic Association from December 4th to 18th. Entry forms must be in by the 27th inst.

THE SOUTHAMPTON Camera Club issues an excellent little year book to its members. Particulars of the club can be obtained from the honorary secretary, Mr. S. G. Kimber, of Oakdene, Highfield, Southampton.

THE HAMPSTEAD Photographic Society has arranged an excellent winter syllabus. Mr. H. Nevil Smart, the honorary secretary, of 40, Compayne Gardens, Hampstead, will be glad to send particulars to anyone interested. The society's dinner was held at the Villa Villa Restaurant on the 28th ult.

THE CONSETT AND DISTRICT Photographic Society at its annual meeting elected Mr. E. J. George president. The secretaries, Messrs. P. E. Surtees and W. E. Massey, having resigned, Mr. J. W. Redshaw, of 70, Durham Road, Blackhill, Co. Durham, was elected secretary, with Mr. E. Urwin as his colleague.

THE FOLKESTONE CAMERA CLUB has just held a very successful exhibition. The silver cup given by the Mayor for the best picture in the exhibition was won by G. W. Perkins, and the club's silver plaque for the second best picture would also have gone to the same competitor, but as he was not eligible for the two it was awarded to Hamilton Smith.

SLOW OR MEDIUM SPEED PLATES were what Dr. Hollingworth at the Hull Photographic Society recommended for the beginner, as they were handled in the darkroom with much less risk of fog. One of the first things to do was to make sure that the darkroom lamp was safe. He used two sheets of canary fabric in the lamp for plates of the ordinary speed, and a sheet of good quality ruby glass for orthochromatic plates. He preferred the factorial method of development, and believed in keeping the dish covered as much as possible during development.

DEMONSTRATING PHOSPHATE PAPER on behalf of the Paget Co., before the Forest Gate Camera Club, Mr. La Fosse said it seemed almost impossible to over-expose the paper, but it was necessary to guard against under-exposure. It was important not to touch the sensitive surface with the fingers. A candle near the developing dish would give a perfectly safe light, the paper being slightly more sensitive to light than ordinary gaslight paper. The developer should not be used stronger (for cold tones) than one in six, nor weaker (for red chalk tone) than one in nineteen. One minute in the fixing bath is sufficient; more than this is liable to give double tones; there is no loss in the fixing bath. The grainless character and fine tones of lantern slides on phosphate plates were much admired.

THE SUBJECT OF THE PRESIDENTIAL address, by Mr. J. C. Mummery, at the R.P.S. to-night (Tuesday) will be "The Influence of Painting on Photography."

SIR BENJAMIN STONE, who is retiring from Parliament at the next general election, was entertained at a farewell luncheon by his friends in the House of Commons on the 4th inst.

THE BLACKBURN AND DISTRICT Photographic Society is holding a very successful exhibition. Next week we shall reproduce a selection of the pictures by kind permission of the exhibitors.

ONE MAN SHOW. An exhibition of photographs by Mr. Arthur Marshall is now open at the Royal Photographic Society's house, 35, Russell Square, London, W.C., and will remain open for the next six weeks. Admission free on presentation of a visiting card.

PHOTOGRAPHERS IN PLYMOUTH would do well to get into communication with Mr. C. F. Ford, of 149, Union Street, Plymouth, the honorary secretary of the Plymouth Photographic Society. The society issues a little handbook, with, amongst other matter, some very unconventional notes.

THE ART MOUNTING PAPERS of the Gadsby series include some 120 different varieties, amongst which every photographer should find something to suit his own taste. A neat folder containing a sample strip of each kind can be obtained for 6d. post free from Mr. Frank Gadsby, 7, Braunstone Gate, Leicester.

SILVAX is the title of a new bleaching powder for bromoil, which is being brought out by Mr. A. H. Garner, of 34, Nicholas Lane, London, E.C. A shilling packet contains enough to do at least twenty-four whole plates, requiring only to be dissolved in the requisite quantity of water. Mr. Garner writes us that the solution keeps well and can be used until exhausted.

A BOOK FREE. We notice that Messrs. Butcher and Sons, Ltd., of Camera House, Farringdon Avenue, London, E.C., issued a coupon in their advertisement last week, in return for which they will send free of charge a copy of their sixpenny booklet, "Optical Lanterns." Those who have not already done so will do well to hunt up that coupon and send it in. The book contains a great deal of very useful information, and is well worth the sixpence usually charged for it.

NEVER EXPLAINED. At the Edinburgh Photographic Society Mr. Duthie remarked that he had never been able to make out why some people put masks on slides of a shape they would never for one moment think of putting on a print of the same subject. As, for instance, the oblong shape with rounded corners, often seen on the screen, but rarely on a print; there are also the oval and circular masks. While they may be suitable for some subjects, they are often applied to slides without any reason except variation of shape.

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

TWO photographs of children playing at bubble-blowing happened to come together in a recent batch of prints, and it was inevitable that I should contrast and compare them. It was odd, in the first instance, to observe how utterly different might be the treatments of virtually the same theme. The chance circumstance that one of the pictures represented a solitary child and the other represented two, had little to do with the difference in the prints. It was a difference in the photographers, not in their sitters—it was an inherent difference in the thought which prompted the effort.



Upwards *By J. Marshall.*

The authoress of "Bubbles" has based her scheme on a well-known painting, long used as an advertisement of a famous soap. The painting is an example of what I may call the artificial treatment of child life—the rosy-cheeked, blue-eyed, velvet-suited cherub treatment, in short. Technically, the painting is exceedingly skilful; artistically, it is—well, entirely suitable for advertising a very excellent soap.

If we have to admit that by this time we are getting more than a trifle weary of the work, we would, at any rate, rather see it than plenty of other and newer advertisements. But, whatever way we look at it, the painting seems to me to be of a type which the wise photographer (unless he be producing advertisements of soap) will steer clear of. For photography's peculiar province is Truth to Life; and this idealising of an urchin into cherubic pretty-prettiness is emphatically not Truth.

Children, in any case, are so much more delightful when not wearing their velvet suits and when not got up as cloud-inhabiting angels. It is as human beings in the making that we love them, not as drawing room ornaments. Who, with mature judgment, does not prefer Tom Sawyer to Little Lord Fauntleroy?



Bubbles. *By Mrs. L. Ellis.*

Who does not prefer Stalkey to Eric or Little by Little? And this, I claim, is no mere masculine preference: it is the deep-rooted instinct of every true parent. Contrast our pair of illustrations—"Bubbles" and "Upwards." Which of these two would you rather sit and watch? Which of these two evokes your sympathy? With which would you have liked to join? If you reply that you prefer "Bubbles," I give you up.

"Bubbles" is manifestly the better piece of photographic technique. But it shows no appreciation of life, and, to be frank, not a very deep appreciation of art either. "Upwards" shows observation, at any rate. It is only moderately good photography, and I have my doubts about its art. But I can look at it with enjoyment, as a lover of children, and I cannot look at "Bubbles" with any sentiments other than pity for the child, and regret that at so early an age the faintest thought of "posing" should have been suggested to him.

In "Upwards" we have definite action, even positive activity. The

upstretched hand of the little girl may be ungraceful, but it is real. The lad may not be as sharply focussed as he ought to have been, but at least he is not contemplating the camera. The bubble itself—which I trust will not vanish in the block—is too far up the composition, or the figures are too far down, and the interest is rather split in halves thus. In spite of these faults, the picture is good. It is good because it adheres to photography's province—Truth.

I do not say flatly that "Bubbles," contrariwise, is bad. That would be too harsh a verdict. Of its kind, it is very fair indeed. But its kind is so perverted a kind! It is such a palpable waste, such an obvious misapplication of so nice a model to set him up as something other than what he really is. He may "pull" sixpences as a tableau at some bazaar by posing in this character, but to photograph him thus when he might have been photographed amusing himself in his own instinctive and probably jolly way, is sheer plate wasting.

It is not that children should never be photographed in the act of "pretending." On the contrary, "pretending" is many a child's favourite game, and might easily make a most appropriate likeness. Children love the theatrical, but it must be their own idea of the theatrical, not their elders.' "A Musical Miss" strikes me as being capital naturalism, even though, in a sense, it may have been posed. It is full of fun and activity; one feels its truth and its merriness. The Miss is vivacious; she is enjoying herself, enjoying the character she is adopting. Compare her with the self-conscious little boy in "Bubbles," and you will see what I am driving at. It is no mere matter of the essential prettiness or quaintness of the respective sitters. Both are delightful. But the one is real, the other unreal.

To some extent one's preference for the "Musical Miss" may be due to her bare legs, her négligé attire—to her not being dressed up for the occasion. Had she been wearing her best ironed and lace-frilled bib and tucker she would have been spoilt. Children should never be dressed up for portraiture. Just because they are such instinctive actors and actresses their clothes affect their expressions. Put the child into his oldest everyday clothes, and you will get him at his most normal. Put him into his Sunday silks and satins and he will live up to them by looking like the immaculate wax seraphs we see in the windows of outfitters' shops. The parent who wants to represent his offspring as an outfitter's dummy ought not to be allowed to handle a camera at all.



Musical Miss. *By John Webster.*

I find it difficult, all the same, adequately to criticise many of the child-pictures which reach me. For I realise that certain of the—to me—least interesting may possess some poignant appeal to their takers, which I cannot hope to appreciate. There may be some glint of expressiveness, even in the most wooden, which endears them to the parents concerned. And in this respect the least "artistic" may be the most precious.

"A Surprise for Daddy" is not artistic. For one thing, the spots of light through the trees above the child's head compete too insistently with the child herself; for another, the monstrous trunk is clumsy, and does not in the least help to balance the tiny figure. But the child's expression has the right cunningness. It is the genuine child-smile—so rarely caught by the shutter!—it is the genuine hint of mischief.

I reproduce this print rather to justify myself than to praise it. I want to prove, to parents whose prints I have from time to time "sat on," that while artistically I may feel it right to criticise a child-picture, I know very well that an element beyond the cut and dried reasonings of the critic may cause that picture to possess merit. This, I venture to guess, is an example in point. Were this my child, I can well conceive myself gloating over the print, blind to its "artistic" faults. "Artistic"—bah! I should laugh at anyone regarding it as a mere attempt at art. "This is my child, to the life," I should say; "that is good enough for me."

And that is precisely the wonderful gift which the possession of a camera bestows on parents—if they will only snap their children as they really are, not as the Christmas supplements would make them.



A Surprise for Daddy. *By J. C. C.*

MR. W. J. CHAPMAN, an Australian amateur whose work has been reproduced in these columns, is the subject of an interesting illustrated sketch in the "Australian Photographic Journal."



Postcards with Toned Borders.

By S. Gregory Crompton.

Special to "Photography and Focus."

THE appearance of a photographic postcard is very much improved if the picture is masked, so as to have a plain border; but if instead of a white border the card is given a tinted one, the effect is still better. We are told so often that white mounts are not very suitable for our prints, that it can only be from the supposed difficulty of making such a tinted border that white margins are not as freely condemned. Since if the print suffers from the white close up to it, it can make very little difference whether that white is on the print itself or on a separate mount.

The masking and remasking of a print, so as to give it a tinted border, is at no time very easy, although some of the appliances, such as the Leto masks, make it a good deal easier than it used to be. But when the print is on bromide or gaslight paper, with an image that is not visible until development, and such helps are not for the moment available, it is at times a very puzzling matter how to ensure proper registration. The method which I have found very satisfactory is the one which is described below, and it has the advantage, as will be seen from the description, that there is no trouble of registration until the image is visible.

The first thing to be done is to get the mask and disc, and in this I cannot urge the amateur too strongly to make his own, cutting them out, not to a stock size, but of a size and shape to suit the picture which he is going to mask.

The black paper which is used on daylight-loading film spools is best to use. It is a little thick for the purpose, but is opaque and easily cut. The exact size of the opening is pencilled on it, and then the mask is cut with the extreme point of the small blade of a pocket knife, made as sharp as possible. A piece of stiff cardboard is the best thing on which to do the cutting, and a steel rule or straight edge makes a good guide. The four main cuts should be made first, and the corners finished afterwards by "digs" with the knife blade, so that both the border mask and the piece cut out are not in any way injured. This last point is important, as the piece that is cut out is as essential as the mask itself.

The postcard is printed with the mask laid upon the negative in the usual way, and after printing is placed in the developer until the image begins to make its appearance.

The print is next transferred to a dish of water, and two or three changes are given to it. While it is being washed development will be found to be going on, and after the lapse of a minute, in the washing, the whole picture will be clearly visible. Two clean pieces of glass should be handy, and on one of these the print is laid, face upwards, and the disc, or piece of black paper cut out of the mask, is placed down on it so as to cover the picture exactly. It is easy to do this, as the picture can be seen. The second piece of glass is then put on the top, and a match is struck and its light allowed to fall on the print for two or three seconds.

The exact time of this exposure must be determined by the depth of tone which the border is to possess, and when once found will always remain the same for that brand of paper. On putting the disc on the wet print the former will cockle up a little, but not enough to do any harm. The match should be moved about during the exposure so that the edge of the disc does not throw a shadow on the print. There is a little knack in doing every time exactly what one wants to do when toning down a border in this way, but it is soon acquired.

After this second exposure, it only remains to put the print back in the developer, and when the picture is fully developed the border will be found to have taken on a tint, more or less deep according to the exposure. It is then fixed and washed as usual. It will be found quite possible, by the same method a little elaborated, to give the prints more than a plain tint all round, using discs of different sizes so as to get bands of lighter or darker tint round the picture.

The method has answered well in my hands, both with bromide and gaslight postcards, but if I had my choice I should use the former, as the gaslight cards not only want much longer exposure to the light of the match, but do not seem to take so kindly to the different development.



Watching Results. *By J. B. Grant.*



A FAIRY TALE. BY MISS WINIFRED H. PROUT

The original of this picture was No. 66 at the Exhibition of the Royal Photographic Society.



Enlarging on P.O.P.

By F. C. G Webb. Special to "Photography & Focus."

How to make enlargements direct upon P.O.P. with an ordinary daylight enlarger. Full working details.

MANY an amateur photographer must have wished that it were possible to make his enlargements on P.O.P. rather than on bromide paper, with its distinctive black or brown tone as the case may be; but he has no doubt regarded it as impracticable from the length of exposure required, which, in the ordinary way, would run into hours. The object of this article is to show that with any of the ordinary forms of daylight enlarger, fixed-focus or otherwise, enlargements may be made quite easily direct on to P.O.P. with only a few minutes' exposure.

The procedure is very simple. Negative and paper are put into their respective positions, just as would be the case were bromide paper being used. As, for our present purpose, we must look upon the P.O.P. as being extremely sensitive, it is best to open the tube or packet in the dark room, and to expose it to no more light than we should do if it were bromide paper. Yellow light will not hurt it, but an exposure to a very little daylight—far less than is necessary to make any immediately visible alteration on the paper—will quite spoil it for enlarging, although, of course, it will in no way interfere with its use for contact printing in the ordinary way.

The P.O.P. having been put into the enlarger in the dark room, it is taken out and exposed to daylight in the usual manner. The exposure will probably be from five to ten minutes, but a trial or two will soon show what is correct, and the trial may be made on a little piece of paper. The exposure should be such that when the P.O.P. is examined in the dark room the detail of the picture on it should just be faintly visible. When it has had such an exposure it is ready for the next stage—that of development.

The developer which I have found most suitable is the following hydrokinone formula, which may be made up as required:

Hydrokinone	10 grains
Citric acid	20 ,,
Sodium acetate	200 ,,
Water	10 ounces

The enlargement is first rinsed quickly in clean, cold water, and then is developed in this until the image is sufficiently



The Dock. *By M. R. Foxer.*

brought out, after which it is given a good rinsing in clean water and fixed in a solution of hypo of a strength of three ounces to the pint. When in the fixing bath, daylight may be admitted to the room and the enlargement examined. If all has gone well it will be found to be of a reddish-brown tone, which may be left as it is, or, if something different is wanted, may be modified by the use of any good combined toning and fixing bath, which should not, however, be one containing lead.

To ensure success when working this process, attention must be given to one or two points. The paper, for one thing, should be carefully protected from actinic light. The enlargement should be rinsed thoroughly between development and fixing, as otherwise one cannot hope to ensure perfectly clean high lights. If there is any suspicion that the paper has been unduly exposed to light before development, the addition of about six drops of glycerine to each ounce of developer will help to keep the high lights pure.

The formula given above is that which has answered best in the writer's hands, but is by no means the only one that can be used. It has the advantages that it is cheap, and that with suitable exposure it will give a good sepia tone on P.O.P. (It may be pointed out, in passing, that it will give a pleasant sepia tone on Velox also, if the normal exposure is increased by one half.) By modifications of the exposure and by varying the proportions of hydrokinone, citric acid, and sodium acetate, the colours obtainable may be varied, getting even green in some cases.

Some Further Hints upon Indoor Portraiture.

MOST people think that the success of the professional photographer is due to the fact that he has a studio, together with the numerous appliances therein fitted to help him. Instead of agreeing with this idea (said Mr. L. L. Raymond at the N.S.W. Photographic Society), I feel justified in saying that a studio, using the word in the ordinary sense, is quite unnecessary. Any room with a fair-sized window makes an excellent studio for all the work an amateur is likely to attempt. Of course, the size of the room is a consideration, and will govern the focal length of the lens. A great feature in favour of using an ordinary room is that the sitter is in everyday surroundings, and as a result is not so likely to adopt a self-conscious pose, but will feel more inclined to look natural. Another advantage is that the lighting is more natural than in most studios, especially in those which have to depend on top windows for most of the light.



Dorothea. *By John W. P. Norton.*

On the subject of lenses, many have very erroneous ideas. My own experience has shown me that it is a mistake to suppose that to do good work one must be possessed of an expensive portrait lens. The most common form of lens is the rectilinear, and all my work has been done with this form. The lens can be used in the ordinary way, but, if so, great care must be taken when posing the model to avoid foreshortening; that is, the prominent points should be got as nearly as possible into one plane. For instance, the hands must not be much nearer to the camera than the face, or else the print will show huge hands and a very little face. This trouble can be avoided easily by using half the lens. This generally nearly doubles the focal length, and the camera is therefore, for the same size, much further away from the sitter. The result is that even if the hands are much nearer to the camera than the face, the difference in the ratios of the distances between the different planes and of the camera is so small that what little enlargement of the nearest points occurs is so minute as to be quite unnoticeable in the resulting picture.

There is another reason, and a more important one, for using the single lens. By using the single combination at full aperture and focussing on the face, all the detail necessary is obtained, and at the same time there is a certain degree of diffusion which, without in any way making the portrait fuzzy, gives a beautiful modelling and softness to the face, and tones down the detail on the clothes, which might otherwise compete with the features in the matter of interest. There is also a wonderful saving in the retouching, a certain extent of which is required on any negative before a really satisfactory portrait is obtained.

Another way of obtaining this slight diffusion is to remove the diaphragm from the lens. A big advantage in this method is that the lens speed is about doubled, whereas in the case of the use of the single combination the speed is halved.

The tripod stand on a polished floor is not a great success. I know of nothing more likely to cause a flow of bad language than to get the camera nicely focussed, in all probability after a lot of trouble, only to see one leg of the stand sail gracefully along the floor on attempting to put the dark slide into the camera. I first attempted to rectify this bad habit by using a piece of string looped round each leg, and found the idea work fairly well; but another device, which was more satisfactory, was a triangle made of battens. The three legs rested on the sides of this, and with a little manœuvring could be got into place to hold the camera in any position.

But a better idea, I think, and one I shall put into practice before long, is to use three battens, but, instead of putting them together in the form of a triangle, they will be fastened together by the ends, something like the three legs on the Manx coat of arms, and hinged so that when the camera leg rests on any one it will be possible to move it about at the same time as the leg of the stand is shifted.



WE are glad at all times to receive useful hints from our readers, derived from their own practice, for publication in this column. The hint or suggestion is the thing wanted; if the sender is unaccustomed to writing for the press we are always willing to put it into shape.

Carbon Prints without Transfer.

I do not know whether many of your readers are familiar with the method of making carbon prints without transfer, which was introduced a good many years ago by Mr. Valentine Blanchard. I have used it successfully for large prints, where a little granularity and diffusion are not very important, and it is certainly simple. All that has to be done is to print the tissue with its back to the negative instead of its face, and then, after soaking it in cold water for two or three minutes, to develop it in warm water in the usual way. The ready sensitised tissue has to be employed for the purpose, as the bichromate in that is incorporated in the coating and the paper is not stained a deep yellow, as is the case with tissue sensitised by immersion. This stain prolongs printing so much as to make the process impracticable with home sensitised tissue. Whether it could be done with tissue sensitised on the face with a brush, as in the case of the spirit sensitiser, I have not had any opportunity of trying, but it ought to be possible. The tissue requires printing for from three to five times as long, when printed in this way, as it would do were it being printed with its face to the negative as ordinarily; but the increased exposure which is entailed is easily found by trial, and unless the light is very poor, and the photographer is in a great hurry, this is not a serious objection.—WALTER HALL.

Washing Large Prints.

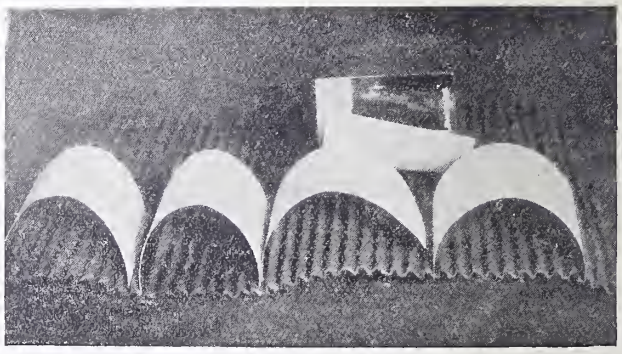
To those amateurs whose space and apparatus are limited the effective washing of large bromide or other prints is often a matter of some difficulty. I put my prints to wash in their fixing dish under the tap. The end of a piece of indiarubber tubing is dropped in the bottom of the dish and kept in place by a piece of clean coarse wire coiled loosely round it, and the other end is dropped over the edge of the dish and, of course, over the sink. Slight suction on this end then sets agoing the syphon, which draws off all the bottom layer of water containing the hypo, and the inflow from the tap can be easily regulated in order to keep the dish just full and balance the syphon draught.—R. GRAHAM WILLS.

Stains on Prints.

A simple and effective stain remover for gaslight and bromide prints can be made by dissolving an ounce of hypo and 300 grains of alum in half a pint of boiling water. The hypo should be dissolved first, and the alum then added at once, while the water is still very hot. The print that is to be cleared is first immersed in a hardening solution, made by dissolving twenty-five grains of alum in four ounces of warm water, and it is left in this bath for five minutes. The solution is then poured off, leaving the print in the same dish. The clearing solution, as above, is divided into two parts, the first, while still hot, is poured over the print, and the dish rocked as in developing a plate. The other part is poured into an enamelled iron dish and put on a gas stove, where it can be kept hot, but not boiling. If the clearing is not completed before the first lot of solution is cold, it may be poured off and the second lot applied, but unless there are a number of prints to be cleared, this will very seldom be required. When the clearing is complete, the print is placed in a dish of clean water, and any deposit that may have settled on it is removed by gently wiping it with a tuft of cotton wool. It is then washed in running water in the usual way. There are two points to note. One is that if the solution is used too hot it will commence to tone the print, and the other that if it is not hot enough it will not work.—N. MORRIS.

Drying Postcards.

Many amateurs find a difficulty in drying their cards when the weather is not favourable. This can be overcome by procuring a piece of corrugated paper (as used for packing)



and placing the cards as illustrated herewith. A piece 12in. × 10in., with the corrugations lengthways, will accommodate a dozen cards.—F. KNOTT.

A Safe Intensifier.

A black negative which is under-developed and thin can be greatly improved in printing value by bleaching and redeveloping with a pyro-metol developer. The colour of a pyro negative, as is well-known, is usually brown or brownish-green, and the deposit consequently possesses much greater actinic density than that of a black negative developed to the same extent. The bleacher may be that used in sulphide toning. Should the colour of the redeveloped image not be sufficiently brown, the negative should be washed in running water for a few minutes, which intensifies the colour in most cases. If the increase in density is still not enough, mercury and ammonia may be resorted to, the fresh image responding quite readily to this treatment, but as the principal object of the redeveloping method is to avoid the risks of pinholes attendant on the mercury process, it is best not to employ this if possible. — SYDNEY J. TAYLOR.

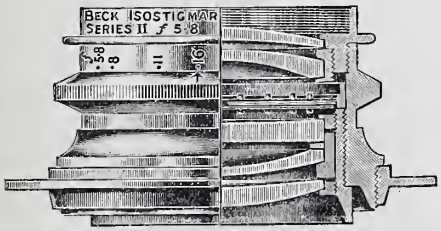
PRACTICAL NOTES ON PHOTOGRAPHIC LENSES

Special to "Photography & Focus"

The Isostigmar Lenses of Messrs. R. & J. Beck.

ONE of the latest anastigmats to be introduced to photographers is the Isostigmar of Messrs. Beck. To the optician this lens is particularly interesting, as it does not comply with what is known as "the Petzval condition," which hitherto was supposed to be a rigid one for all lenses which should have a flat field free from astigmatism. We are more concerned with its performance than with its design, however, and having noted that, in spite of its nonconformity with the Petzval condition, it certainly has a field conspicuously flat and free from astigmatism, we will pass to the practical considerations which affect photographers.

The Isostigmar consists of five separate uncemented glasses, arranged (except in Series IV.) two in front of and three behind the diaphragm, in two groups of two and three respectively. The whole lens is free from distortion, gives a brilliant image of excellent definition over the whole field, and is suitable for any of the applications of photographic lenses — portraiture, copying, projection, kinematograph, and general outdoor and studio photography.



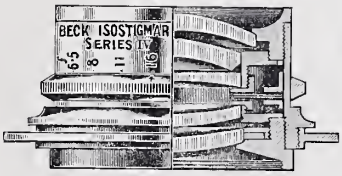
The Series II. Isostigmar.

In spite of its unsymmetrical construction, it is possible to use the two groups in which its five lenses are arranged separately, when a lens of longer focus than the complete Isostigmar is required. But neither of these groups is completely corrected in itself, and so when one of them is used alone it will be found to require stopping down somewhat, if critically sharp definition is required. When the longer focus lens is required for portrait work, the character of the definition which it will give without stopping down will often be found very suitable.

There is this about the use of the half lens of the Isostigmar which may be noted. In the case of lenses belonging to Series II., III., and IV., which include those most likely to be used by amateurs (Series I. is an f/4.5 lens chiefly used for portraiture, although a valuable lens for reflex work, while Series V. is a process lens), it is possible to screw the back half into the place of the front half in the mount. In this way, the lens may be an inch or more further from the plate than the extension of the camera would otherwise allow, and that extra length is at times a very important matter, as it may make all the difference between being able and being unable to use that part of the complete lens. The two "halves" into which the Isostigmar may be separated are not both of the same focus; the back lens usually is of longer focus than the front, but in some cases the reverse holds good, and "the exact foci of the individual half combinations vary somewhat." When the back combination is screwed into the front of the mount, it should be watched to see that it does not come into contact with the leaves of the iris diaphragm or shutter, which, as it is longer than the front combination, may happen. An adapter or lengthening tube must be used if there is any danger of this.

There is one form of the Isostigmar lens which is worth noting from the fact that it possesses two qualities which many photographers are apt to regard as incompatible; these are a very wide angle and a large aperture. This type is known as the Series IV. Isostigmar; it includes an angle of 90°, yet works at f/6.3. It may thus be used either as a wide angle lens on a plate which is nearly as large as it will cover, or it may be used as a very rapid lens of medium angle on a smaller plate, with the knowledge that in this case the photographer may use the rising front to almost any extent he likes.

As an example of this we may take the case of the No. 3 Series IV. Isostigmar, a lens which has a focus of 4¾in., and costs, in an aluminium mount with iris, £3 17s. 6d. This lens will cover a half-plate up to its corners, and so on this size of plate it acts most efficiently as a wide angle lens. Or, if we will, we may use it on a quarter-plate, for which it is about the focus ordinarily employed, and at f/6.3 is very fast. In this latter case we can raise or lower the front no less than two and a quarter inches, a total available movement of four and a half inches, and yet there will be no cutting off at the corners. This property is one of which more advantage is likely to be taken in the future, now that the tendency of camera makers is to give more and more rise to the front.



The Series IV. Isostigmar.

For portrait work there are at least three distinct series of the Isostigmars available. Series I. is a f/4.5 lens, which will also be found very suitable for reflex work, as it covers a large field with fine definition. Series 1A is a very useful portrait lens, as it is made at a comparatively low price for a long focus instrument. Thus the 9½in. lens, which works at f/6.5, only costs £5 5s., while a 19in. lens of this series can be purchased for £23 10s. Then there is also a Series VI. for portraiture. These lenses work at f/5.6, and are provided with an adjustment by means of which any desired degree of diffusion can be introduced into the image by rotating a graduated brass ring on the mount.

Enough has no doubt been written to show our readers that in the Isostigmar lenses Messrs. Beck have been able to accommodate a most original design to every one of the requirements of the photographer. If anyone wants further details of these instruments we would strongly advise him to drop a postcard to Messrs. R. and J. Beck, Ltd., 68, Cornhill, London, E.C., for a copy of the Isostigmar booklet.

Photographic Reconstruction.

By L. S. R. Cary. Special to "Photography and Focus."

THE photographic reconstruction of various articles opens up a new field of energy for the decorative worker or the worker who is seeking for something fresh in the way of presents for friends at Christmas or other times. Perhaps the best way of showing the possibilities of the subject will be to describe in detail how a model of a carved table was made.



Fig. 1.—The Table Top.

Fig. 1 shows the first photograph to be taken, that of the table-top; while fig. 2 shows the second and only other photograph taken, that of the table legs. As will be seen, this table happens to be triangular in shape, and the three solid legs radiate from the centre.

The photographs were taken on the largest scale possible with the camera in use; and care had to be taken to have them all to the same scale, to avoid irregularities in the model. This was effected in the present instance by first noticing when focussing it what space was occupied on the ground-glass screen by the diameter of the image of the table-top. Then on the legs a space was measured equal to that diameter, and when focussing the legs I took care that that space fitted accurately on the ground-glass into a space equal to that of the diameter. This was easier than would appear at first sight. In this case the legs were spread out so as to be both in the same plane while they were being photographed. This precaution was necessary to avoid distortion and give true drawing of the table in the finished model.



Fig. 3.—The Model Complete.

Prints were then made of each aspect or face of the subject, viz., one of the top and three of the legs. The printing process may be selected according to taste, but sepia-toned bromide or gaslight paper is very effective for subjects of a brown colour. The prints were then carefully cut out, as shown in figs. 1 and 2, and pieces of cardboard cut to their exact shape. For the top only one piece was required, and for the legs one piece the shape of fig. 2 and another piece the shape of half of fig. 2. The cardboard model was then built up from these pieces with the aid of some thin glue and linen strips, and the edges of the card were slightly bevelled in order to give it a finished appearance. When this was thoroughly dry, the cut-out prints were mounted on the cardboard, and after trimming and colouring the edges the model, as shown in fig. 3, was complete. By the model a thimble has been placed to give an idea of the size obtained with a half-plate camera.

Perhaps this description will prove a sufficient source of ideas for the worker who uses his hobby as a means of giving pleasure to others. Among the subjects which lend themselves to this treatment may be mentioned wood carvings, such things as a person's favourite bookcase, interiors, houses, architecture, old oak chests, etc. Many other things will no doubt occur to the thoughtful mind.



Fig. 2.—The Table Legs.

A HINT TO DEALERS. One of the current issues of a Kodak circular gives the following warning regarding acid fixing: "We have come across several cases lately where dealers have placed acid hypo in stock, or on display near cameras with nickelled fittings. The sulphur fumes from the acid hypo have caused the nickelled fittings on the cameras to tarnish or blacken to such an extent in some cases as to necessitate the re-nickelling the camera fittings."



THE DEVIL'S BRIDGE. BY HARRY WILD.

The original of this picture was No. 14 at the Exhibition of the Royal Photographic Society.



Mounting with Starch.

By W. H. Alexander. Special to "Photography and Focus."

POPULAR and deservedly popular as are some of the excellent mountants on the market, starch is still perhaps more used than any other substance for mounting purposes, possessing as it does the merits of adhesiveness, purity, and economy. The chief drawback to its use is that, as usually employed, it has to be freshly prepared, but this, as is shown below, is not a necessity, and it is quite easy to make up a starch mountant which will keep in perfect condition for a very long while indeed.

Any good quality of starch will do, but if the special starch made for mounting purposes is to be got it is better to use it, as its complete suitability can be relied upon. The mountant should be perfectly free from lumps, and to secure this the starch must first be stirred up with a little cold water into a thin cream. If it is then left for a minute or two, any lumps will sink to the bottom, and the liquid part may be poured off for use. If any lumps are left, a little more water may be added, and after stirring the operation may be repeated. This liquid is then placed in some vessel which will hold twenty or thirty times as much as it, and then, while it is vigorously stirred, boiling water from a kettle is poured in until the whole mass suddenly thickens. When this takes place, about half as much again of the boiling water is added and the starch is made. The water should be practically boiling—that is to say, the kettle should be lifted straight off the stove on which the water has been boiling, and pouring commenced at once, and the stirring should be continuous all the time. As soon as the starch is quite cold, and the skin which forms on its surface as it cools has been removed, it is ready for use.

Starch paste made in this way should be thin, almost transparent, and quite free from any lumpiness. A very little is required to make a print adhere properly to its mount, and that little should be well brushed into the back of the print with a stiff brush. It should not be used until cold, but it should not be used without a preservative if it has been made more than 24 hours, as it very soon begins to ferment.

One of the causes why some amateurs fail in getting the prints which they mount with starch to stick down properly is this fermentation due to the starch not being fresh. A characteristic sign of this is when a clear watery liquid separates from the rest of the adhesive. Some so-called preservatives do little more than mask the alteration in the starch, and others, while preserving the mountant, may act injuriously on the prints.

If the starch is to be kept, the following method, which was published in *Photography* several years ago, is the best I have come across: An ounce of starch is made up into a cream as described, and cold water added to make half a pint all told. This is then placed in an enamelled iron saucepan, put on a gas stove, and stirred until it thickens. It should be heated and stirred for a minute or two after the thickening has taken place, and then, while still hot, half an ounce of glycerine is added and stirred in. When it is nearly cold, two or three drops of oil of cloves and half an ounce of methylated spirit are thoroughly incorporated with it, and it is put into pots for use as required. Except that it will get dry on the top in the pots, starch so prepared keeps in good condition almost indefinitely.



Tulips. *By F. N. Tipton.*

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REVIEWS

The Edwards "A.S." (Auto-Screen) Plate.

THE old-established business of Messrs. B. J. Edwards and Co. has had new life breathed into it by its acquisition by the Leto Co., and not only have the well-known and highly appreciated staples of the old firm been pushed once more with the energy which their quality well deserves, but new plates are being introduced, one of which the "A.S.," or "Auto Screen," plate has been under trial by us lately.

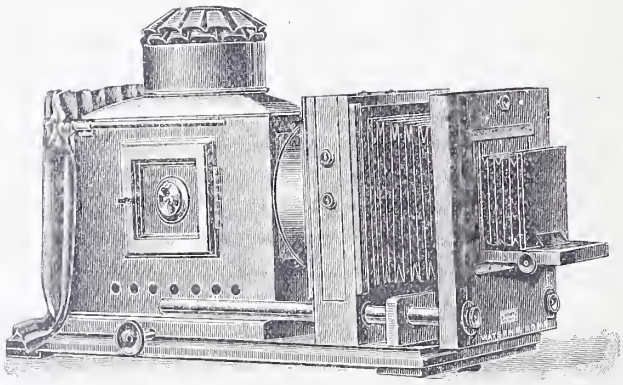
Every photographer who has worked much with orthochromatic plates is well aware that for the great majority of subjects he must use a colour screen with them if he wishes to get any noticeable improvement in colour rendering above and beyond what he can get with an ordinary plate, and this colour screen will increase the exposure to several times what it would otherwise be, according to the depth of the screen employed. In the "Auto Screen" plate, as its name suggests, the colouring matter of the screen is incorporated in the emulsion itself, so that the screen and plate are one. The result of adding the dye to the ordinary plate coating is to make the plate a deep almost an orange yellow colour, but this stain disappears in the subsequent operations.

The treatment of these plates is in no way different from that of ordinary plates. Being orthochromatic, they must not be unduly exposed to the red light of the dark room, of course, but the same precautions that would be taken with the "Snap Shot Iso" plates of the same makers will be found to be quite sufficient. The developer recommended is pyro-soda, and pyro-soda was what we used in our own tests, which were all camera tests. The plates developed very well. There was no difficulty in getting plenty of contrast, and the gradation was excellent.

In the absence of anything like a standard of orthochromatism, it is difficult to describe in words the extent of the correction which the new plate will give. On a landscape it certainly kept the detail in the sky excellently, much better than the unscreened orthochromatic plate of the same makers would do. Perhaps the best summary we can give of its capabilities is to say that for all the ordinary purposes of the amateur, where he requires something in the nature of a compromise between the excessive exposure necessary for a perfect reproduction of the colour values and the rendering given by an unscreened orthochromatic plate, the "A.S." plate will answer his purpose excellently.

The Enlarger de Luxe of Watson and Sons.

THE illustration which we print herewith shows the latest enlarging lantern to be put upon the market by Messrs. W. Watson and Sons, Ltd., of 313, High Holborn, London, W.C., known as their Enlarger de Luxe. The lantern is made throughout of mahogany, the lantern body being lined with Russian iron, and provided with an iron cowl with a copper top. The back is closed by a hinged door, a completely light-tight end being secured by the provision of a velvet curtain outside the door.



The front part of the lantern carries a miniature front on a board, so that the fine focussing can be done by a rack and pinion arrangement on this attachment, as can be seen clearly enough in our illustration. This front is attached to the main front in such a way that it can be taken off in an instant, when it is required to use some other lens or fitting.

The carrier is made square and reversible. It allows the negative to be swung out of the vertical when this is necessary, and clamped at the angle required. The lantern body has a rack and pinion for adjusting its position relatively to the condenser, the front being carried on brass tubes. The finish of the whole apparatus is of that perfect character which we have come to regard as inseparable from the work of Messrs. Watson.

The lantern is constructed to take any illuminant the enlarger may wish to use. Messrs. Watson themselves recommend the Kama Nernst electric lamp when there is a supply of electric current available. When there is no current, they advocate incandescent gas, or, in the absence of gas, the Vril incandescent spirit lamp. The enlarger in quarter-plate size, with a 5½in. condenser, sells at £8 10s. without lens, the price including either oil, Vril spirit, or incandescent gas fittings. If a Series I. Holostigmat lens is supplied, the price is £14 15s.; the Nernst lamp in this size can be supplied in place of either of the illuminants named for an extra charge of 7s. 6d. The De Luxe enlarging lantern is also supplied in 5 × 4, half-plate, and whole-plate sizes at proportionate prices.

The "A.B.C. Guide to Autotype Carbon Printing."

THE textbook issued by the Autotype Co., of 74, New Oxford Street, London, W.C., and Ealing, has long been regarded as the standard treatise on the subject for the carbon printer, based as it is on the work bearing that title by Mr. J. R. Sawyer, one of the founders of the process as we know it. A new edition, revised up to date, has just been published at the price of a shilling nett (or post free from the company for 1s. 2d.), which should certainly be read by everyone interested in one of the most beautiful of photographic methods.

The only important omission that we note is that of any reference to the sensitising bath containing citric acid and ammonia, first published by Mr. H. W. Bennett in *Photography* some five years ago, which has now almost entirely supplanted the plain bichromate solution, at least as far as amateurs are concerned. For the professional, the fact that tissue sensitised with such a solution is not quite so rapid as tissue sensitised on the plain bichromate bath may be important, but the greater cleanliness and better keeping properties conferred by the citric acid and ammonia far out balance this, and rightly so, we think, as far as amateurs are concerned. We wish also that the Autotype Co. had not given its countenance, officially as it were, to the term "the continuating action" when "continuing" is quite as clear and certainly preferable.

These are only trifles, however, and in no way interfere with the value of what has been and must continue to be the recognised and standard guide on its own subject.

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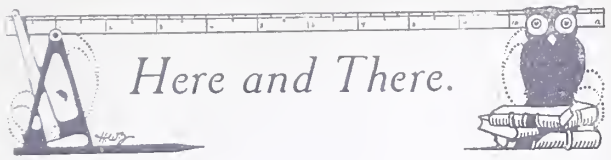
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A Mercury Intensifier.

If twenty minims of commercial hydrogen peroxide is added to each ounce of the mercuric chloride solution used in intensifying, it will be found to work much better. So writes M. Le Roy in "Apollo." The perchloride, he points out, not only facilitates the bleaching, but at the same time is a great preventive of stains.

Improved Blue Prints.

An interesting paragraph in the "Photographic Times" states that blue prints can be very greatly improved in brilliance and contrast by treating them with hydrogen peroxide. One dram of the commercial hydrogen peroxide may be diluted with five ounces of water, and will serve for the treatment of a number of prints. They are simply dipped into it. The contrast is said to be increased "fourfold."

Removing Pyro Stains.

Dr. Owen L. Rhys, writing in "Photographic Scraps," states that photographers may not be aware that pyro-stained finger nails can be cleaned very quickly by first staining them deeply with potassium permanganate, and then scrubbing them with oxalic acid in warm water. He discovered this accidentally, and finds it thoroughly efficacious. It should be added that the oxalic acid is very poisonous, and will make any scratch or cut which it reaches very painful.

Improving Lantern Slides.

It is better to make a new slide than to put up with one which is badly exposed or developed. At the same time, as Mr. Duthie told the Edinburgh Photographic Society, in his presidential address, slightly under-developed slides will give good results, and slides of a grey tone may be improved, by treating them with the mercuric iodide intensifier, which changes the image to a brown tone. Sulphide toning, as used for bromide prints, will also improve thin slides; but it has this disadvantage, that its action cannot be stopped just when the correct density is reached, as can be done with mercuric iodide.

A Printing Frame Device.

It is sometimes desirable to be able to inspect the whole of a print while it is in the frame, and this can be done very simply by making the back of the frame in three pieces instead of two, and hinging these together. The middle piece (writes Mr. J. A. Anderson in the "Photographic Times") does not require any spring to hold it down, if it is quite narrow. The alteration is easily carried out, and allows the whole print to be examined, by lifting the two ends successively.

Stripping Films from Negatives.

A reliable method of stripping the film from a glass negative, so that it can be printed from either side, is a useful thing to know. Mr. Gamble in his book on the line-photo-engraving, just published, says it can readily be done by soaking the dried negative in a saturated solution of sodium carbonate, rinsing and drying it again without thoroughly washing out the soda. The film can then be cut through to the glass with a sharp knife, a little way from the edge, a corner lifted with a point of the knife, and the whole stripped off quite easily. The film can then be printed from the reverse side, if this is required.

A Studio without a Camera.

It is not really a studio without a camera which is described in the "Wochenblatt," but a studio in which no camera is visible, and is intended to do away as far as possible with camera consciousness. The sitter may be photographed several times without being aware that the sitting has begun. To do this, there is a cabinet or small room in or adjoining the studio itself, and in the cabinet is a camera and operator. The only communication between cabinet and studio is a window about three feet square, and the camera is well inside some distance from the window. As the cabinet is dark, the window looks black, reflecting anything in the well-lit studio, but not revealing what is within the cabinet. The photographer who is outside arranges the sitter within range of the camera behind the window, and when a favourable pose is secured signals to the operator within to make an exposure.

Developing Negatives in Daylight.

A method by which a negative on any ordinary plate may be developed in daylight is described in the "Scientific American." The exposure must be ample, and the exposed plate is transferred in a light-tight bag or dark room to a four per cent. solution of potassium iodide. This changes the silver bromide to the less sensitive iodide salt, and when the plate has been in this for about two minutes it may be exposed to subdued daylight and developed in a metol-hydrokinone developer made up by taking equal parts of the following solutions:

A.—Water	... ...	10 ounces
Sodium sulphite (crystals)	... ...	320 grains
Metol	... ...	8 ,,
Hydrokinone	... ...	64 ,,
Potassium bromide	... ...	320 ,,

B.—Three per cent. solution of caustic potash.

The plate should be rinsed after the iodide bath and before development; the latter operation requires about five minutes. Silver iodide being less soluble in hypo than silver bromide, the fixing takes longer. The iodide solution may be used over and over again, but fresh developer should be taken for each plate.



"Daddy's Tick Tick." *By Sergt. G. H. Cleaves, R.G.A.*

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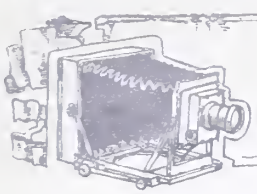
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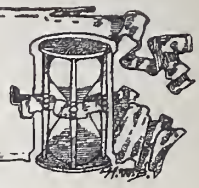
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The Week's Meetings.



MONDAY, NOVEMBER 8TH.

Attercliffe P.S. Annual Meeting.
Bradford P.S. "Photography and Art." Rev. H. W. Dick.
Marylebone C.C. "Trip through South Devon." E. Markwell.
Preston C.C. "In Western France." T. H. Greenall.
Walsall P.S. "Large Prints from Small Negatives." W. F. Slater.
Leeds C.C. "Rambles in Upper Wharfedale." T. Ryder.
Leeds P.S. "Photographic Facts and Fallacies." Burroughs-Wellcome.
Slough C.C. "Newer Printing Processes." Messrs. Griffin.
Oxford C.C. Lantern Slides.
Bowes Park & D.P.S. "Printing." C. Wille.
Southampton C.C. Prize Slides.
Swansea C.C. *Photography and Focus* Prize Slides.

TUESDAY, NOVEMBER 9TH.

Leeds P.S. "Land o' Cakes and Plump Spates." T. E. Green.
Bradford G.S.P.S. "Rambles in Birdland." T. Askew.
Glasgow Southern P.A. "Ensyna." F. J. Stedman.
Glossop Dale P.S. "Large Prints from Small Negatives." W. F. Slater.
Halifax C.C. "Modern Apparatus." R. Hesketh.
Nelson C.C. Supper.
Fernhead W.G.P.S. "Intensifying." H. Dyer.
Worthing C.C. "Glasgow and Edinburgh." J. G. Potter.
Nelson P.S. "Whalley Abbey and Hoghton Towers." A. Hodgkinson.
Doncaster C.C. "Dinant." E. E. Burgess.
Otley & D.C. & A.S. "Clouds and the Weather." A. E. Hasse.
Dover Inst. P.S. Prize Slides.
Manchester A.P.S. Members' Slides.
Forest Gate C.C. Print Criticism.

WEDNESDAY, NOVEMBER 10TH.

Bristol P.C. *Photography and Focus* Prize Slides.
Hackney P.S. Annual Exhibition.
Sale P.S. Print Criticisms.
G.E.R. Mech. Inst. "Still Life Studies." H. W. Bennett.
Balham P.S. "Ensyna." F. Marshall.
Crompton C.C. "Large Prints from Small Negatives." W. F. Slater.
Rochdale A.P.S. "Modern Apparatus." R. Hesketh.
South Suburban P.S. "Night Photography." A. H. Blake.
Borough Poly. P.S. "Bromide Enlarging." P. Carden.
Manchester A.P.S. "Romance of Architecture." J. Shaw.
Woodford P.S. "Newest Printing Methods." Messrs. Griffin, Ltd.
Ilford, P. S. Whist Drive.
Edinburgh P.S. "Early English Gothic." R. Berry.
Darwen P. A. "Salted Papers." W. A. McLean.
Croydon C.C. "Telephoto Work." E. Marriage.
St. Helens C.C. "Fair Devon." C. R. Rowe.

THURSDAY, NOVEMBER 11TH.

Preston C.C. Folio Print Criticism.
Queen's Park (Glasgow) P.S. "Ensyna." F. J. Stedman.
Longton & D.P.S. "Autochrome and Lantern Display." W. Partridge.
Bolton C.C. "Large Prints from Small Negatives." W. F. Slater.
Brighouse P.S. "Modern Apparatus." R. Hesketh.
Armley & Wortley P.S. "Gaslight and Bromide Printing."
Richmond C.C. "In Roman Africa." A. V. Driesche.
Wimbledon & D.C.C. Prize Slides.
Cardiff Windsor P.S. "Passe-partout." F. H. Brown.
Liverpool A.P.A. "Thames Valley." J. McIntosh.
Glasgow E.P.A. "Wet Day Work at Home." J. Hugginson.
Snow Hill C.C. "Carbon and Ozobrome." Bone and Sanders.
Manchester A.P.S. "Historic Homes." F. Moss.
Watford C.C. Affiliation Prize Slides.
Hull P.S. "Rhineland and the Moselle." J. Divine.
Maidstone & Inst. C.C. "Hindoo Architecture." Rev. A. Gatehouse.

FRIDAY, NOVEMBER 12TH.

Mill C.C. (St. Mary Cray). *Photography and Focus* Prize Slides.
Paisley P.S. "Ensyna." F. J. Stedman.
Colne C.C. "Large Prints from Small Negatives." W. F. Slater.
Skipton P.S. "Modern Apparatus." R. Hesketh.
Birkenhead P.A. "Evolution of an Amateur Photographer." W. Brunt.
Lincoln A.P.S. Beginners' Night.
Manchester A.P.S. "Thames Valley." J. McIntosh.
Salisbury C.C. Carbon Printing Process.
Wakefield P.S. Prize Slides.

SATURDAY, NOVEMBER 13TH.

Nelson C.C. Alliance Exhibition.
Colne C.C. Exhbition.
Manchester A.P.S. "Yellowstone Regions of the Far West." H. E. Young.
Darwen P.A. Inter-club Exhibition.

MONDAY, NOVEMBER 15TH.

Bishop Auckland P.S. *Photography and Focus* Prize Sildes.
South London P.S. "Light and Shade." C. Bale Rider.
Bradford P.S, "Colour and Colour Photography." C. B. Howdill.
Equitable P.S. "Flash Light." J. W. Bamforth.
Southport P.S. "Large Prints from Small Negatives." W. F. Slater.
Leeds P.S. "Modern Apparatus." R. Hesketh.
Southampton P.S. "Picturesque Holland." Rev. J. Heath.
Wallasey A.P.S. Members' Slide Night.
Bowes Park & D.P.S. "A Tale of Two Cities." H. C. Beckett.
Canterbury C.C. Prize Slides.
Lincoln A.P.S. Exhibition.
Stafford P.S. "Ozobrome." H. A. E. Heye.
Catford & Forest Hill P.S. Monthly Competition.

Societies will have their meetings announced here if their syllabus is sent to us at the beginning of the Session or from time to time.

BUSINESS NOTICES.

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TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

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PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.

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"The time has come, the Walrus said, to talk of many things."

I HAVE to acknowledge, with deep gratitude, a most courteous and flattering communication from a gentleman who prudently conceals his identity under the pseudonym "Ptolemy." He commences: "Dear old Fathead,—Of all the objects which I have an utmost contempt, it is that blithering balm-pot the Walrus." I am so glad to hear it. The grammar is not above suspicion, but the sentiment is admirable; and I thank the writer. When he goes on to refer to me as a "thick-hided (or thick-headed) idiot," I am so overwhelmed that I can only thank him again. He is too kind. He then takes an unholy delight in pointing out that his dictionary does not include the word walrus. That's the worst of these cheap dictionaries. The marvel is that they contain as many words as they do for a penny. He evidently concludes that there is therefore no such beast as a walrus, and that I am a mere myth.

* * *

"Ptolemy" has a grievance against me. He says that I faithfully promised to show him a method by which he could escape the harsh criticisms of his prints by my friend the "Bandit," whom he intends to kill. (Fare thee well, dear "Bandit"!) I have no recollection of any such promise, but clearly "Ptolemy" could escape criticism by refraining from sending his prints. The "Bandit" would not break his heart over the loss, I'm sure. But, strangely enough, "Ptolemy" has sent a print to me; at least, I suppose it is meant for a print. If it is only a sample flypaper I apologise; but on the assumption that it is a print I will say what I can in its favour.

* * *

The size of the picture is insignificant, and the proportions poor. The creases and dirt on what I take to be the back form a fairly good decorative arrangement, and are decidedly preferable to the subject on the front. The foreground would probably have been satisfactory if it had been included. The sky, which is very much included, is horrible. The pink snow is an original and striking innovation. An attempt has evidently been made to produce a bi-colour print, but one of the colours has gone bad, and the other is worse. No doubt the print would have shown many good points if there had been room for them, but the entire space available is otherwise occupied. The "Bandit," with his keen eye, would probably have found defects in the production, but by sending it to me "Ptolemy" has been able to learn what can be said in favour of his work. He need not trouble to thank me. He is more than welcome.

* * *

Another correspondent, who rudely omits to address me as fathead, and refers instead to my briny brain, asks me to explain the following advertisement in a contemporary journal: "Fishing Smacks.—To Bromoil and Gum workers, etc., who are unable to be Now is your chance." This is certainly not as clear as it might be. After careful cogitation with my briny brain I have decided that for euphemistic purposes the word "sick" has been omitted. The idea seems to be that many bromoil and gum workers on contemplating their work feel decidedly sick, and yet are unable to reach any actual result. In this case they are offered the chance of a voyage in a fishing smack. This ought to do the trick, especially when the return voyage is long and the weather particularly hot, so that the dead fish can do their worst. At the same time, I cannot quite understand the difficulty. From what I have seen of some bromoil and gum prints I fail to see why the producers should find themselves "unable to be." Personally I can stand the roughest voyage in a fishing smack, but when it comes to some bromoil prints my difficulty is how not "to be."

When some of us go to have our portraits taken we are justified in making the best of ourselves such as it is. It need not be counted unto us for vanity that we chalk over the worst patches on our collar, and endeavour to make our ancient clothes bear some resemblance to civilised garments. We may be forgiven for taking the photographer into a corner and whispering the information that we are willing to pay for an extra fourpennyworth of retouching where it will do most good. With all our precautions the result when the proof is delivered is calculated to bring tears of chagrin to our eyes, and to lead us to take into consideration very seriously the question whether we should not be doing a public service by committing suicide.

* * *

All this being so, I was filled with envy at the superior advantages of a kitten which was recently photographed in London. As it gracefully posed for the humble operator it was seen to be clothed completely in rich fur, while it wore a golden crown on its head and a gold order round its neck. This latter was probably the order of the bath, as I read that every morning the cat luxuriated in a perfumed bath. Its favourite occupation was "to paw the keys of a grand piano," and I wonder it was not photographed playing the "Cats' Quadrilles" on a Brinsmead grand. Another cat belonging to the same lady (who comes from America) was not allowed to be photographed until its ears had been pierced and fitted with gorgeous diamond ear-rings. Would that I were a cat instead of a blithering walrus. I think that even I would make a good photograph if I were fitted up with a gold crown and collar and a pair of diamond ear-rings.

* * *

We shall hear next, I expect, of some of these plutocrats from the States having their horses photographed with golden shoes, and their pet apes will sit adorned with diamond tiaras. Their dogs will wear pearl-studded knickerbockers, and their tame skunks will flaunt it in cloth of gold. I am really sorry for the poor professional photographers who have to prostitute their abilities and degrade themselves and their cameras by doing such loathsome work. I should think they could easily be sick without the aid of a fishing smack.

* * *

Were I a photographer, which I am often told I am not and never shall be, I should certainly jib at a perfumed cat with a golden crown. Rather would I turn out penny stickybacks of Harry who comes in with a gorgeous spotted choker round his neck, and of Harriet who crowns herself with the rear adornments of an apocryphal ostrich, although neither of them may have had a perfumed bath for some time, nor have pawed a grand piano as a pastime.

THE WALRUS.

SUBSCRIPTIONS.

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Lantern Exhibitions at Home.

How an enlarging lantern can be modified for showing slides: the most convenient illuminants: a simple screen for home use: brilliancy with comparatively weak lights and how it is secured.

NOW that the winter evenings compel the amateur photographer to turn his attention to indoor occupations, there must be many who have thought that they would like to be able to show their slides to their friends at home were it not that the cost of a lantern and of gas cylinders, etc., is to the majority quite prohibitive. They must often have asked themselves how it is that an enlarging lantern cannot be used for showing slides, as many an amateur has such an apparatus. The reply to this is that, as a matter of fact, it can, although under ordinary conditions it is not very satisfactory.

There are two chief objections to the use of the ordinary enlarging lantern for this purpose, and neither is insurmountable. Most enlarging lanterns are made to take a larger plate than lantern slide size, quarter-plate until this season having almost been the minimum. When a slide is fitted into the carrier of such a lantern a very great deal of the light is stopped by the carrier, the picture part of most lantern slides not being more than about half the size of a quarter-plate. Hence, as at least half the light is wasted, usually much more, the slide looks dull and heavy.

In Enlarging, Extreme Brilliance is Not Very Important.

Good definition is what is wanted, and a little shortcoming in the matter of the light only means that the exposure will be a little longer. Of course, we cannot remedy the weakness of the light in projection in the same way. The importance of definition leads to the use of comparatively slow lenses for enlarging, whereas in slide-showing critical definition is not so important, and lenses working at f/5 or f/4 are used.

It would appear, then, that if the carrier of the enlarging lantern can be fitted to take lantern slides, and a smaller condenser and faster lens used, there is no reason why the enlarging lantern should not be used for projection purposes, and this, as a matter of fact, is the case. (It may not have escaped the attention of the readers of *Photography and Focus* that one of the features of the new patterns of enlargers for this year is that they are designed so as to be fitted readily for showing slides.)

The most suitable condenser for showing slides is one of four and a half inches in diameter, which can be purchased new for less than half a sovereign. It must be placed so as to be as close as possible to the lantern slide carrier, and it is necessary to have some arrangement by which the distance of the light from the condenser can be varied, as not only will the smaller condenser need the light nearer to it, but to secure the best light the photographer must be able to vary the distance of the light according to the lens used and the distance of the screen.

Lenses for Projection.

The lens used should be as rapid as possible. If the photographer has a C.D.V. portrait lens, which can often be got second-hand very cheaply, he has an excellent instrument for the purpose. Lantern lenses are not by any means as costly as photographic lenses, and a suitable instrument for showing slides, mounted simply in a metal tube, need not cost more than the condenser. A cardboard or other fitting into which this tube could be slipped will in that case have to be fitted to the front of the enlarging lantern, and when this has been done nothing beyond a slide carrier and some form of sheet or screen will be required for the display.

MEMORANDA *for the week.*

Free offers which appear in this space at any time are worth noting by our readers.

Nothing Better than Incandescent Gas.

As an illuminant for showing slides at home there is nothing more convenient than the incandescent gas burner; either the ordinary cone or the inverted may be used. The light is very white and steady, and the fact that it needs no attention of any kind whatever from start to finish is a great point in its favour, as every lanternist will admit.

Where there is no gas available one of the spirit burners to take a gas mantle may be used, and the light which these will give is a great deal more powerful than the incandescent gas; but our own preference in such a case is for acetylene, which with two burners will be found to give all the light required, and with an efficient generator will require no more attention than the incandescent gas. Where there is a supply of electricity the Nernst lamp is very suitable. It, too, does not require any attention, and the light is white and concentrated. Special forms of the Nernst electric lamp are made for projection purposes.

In selecting an illuminant one must remember that both for slide showing and enlarging mere strength of light is not so important as its concentration, more light reaching the screen from the little acetylene flame than from a large incandescent mantle, even if the total light emitted by the two sources were equal. The electric arc lamp—the best light of all—we only mention in passing, as it is a little beyond our present subject.

The Carrier.

The simple push-through carrier takes a good deal of beating, but our own preference is for a carrier which darkens the screen entirely while the slide is being changed. On no account should the screen ever be shown with the uninterrupted light of the lantern on it, as this will make all the slides subsequently shown look dull. For the same reason great magnifications are to be avoided. Not only do they make the picture dull by spreading the limited quantity of light over too large an area, but when the spectators are as near as they are bound to be in a living room the pictures will look coarse and spotty. A maximum diameter of disc of three feet will be found ample.

We hope we have written enough to show that it is quite possible to display one's slides every bit as effectively on a small scale at home as on a large scale in a lecture room or theatre, and that without either costly or complicated apparatus. H. G. N.



The Spirit of the Times.

Our Pictures.

Five of our illustrations this week are by members of the Blackburn and District Camera Club, and form part of a set with which that society has recently taken the first place in an inter-club competition. About twelve months ago a scheme for drawing the members of the different photographic clubs around Blackburn into closer touch with each other on photographic matters was organised at that club's rooms, and a conference was held at which delegates from a number of other societies were present. An annual competition for a championship shield amongst societies within a radius of eighteen miles was arranged, and it is in the first of these, which has just been held, the judge being Mr. F. M. Sutcliffe, that the Blackburn Club was successful. Thirteen societies competed, each sending nine prints, the Blackburn nine being selected from a considerable number by the Editor of *Photography and Focus*. The whole of the competing prints by the different clubs are on view until the 20th inst. at the Blackburn Society's exhibition at the Museum and Art Gallery. This inter-club competition is an idea which might very well be adopted in other centres where there are a number of societies within easy reach of one another.

The Ventilation of the Dark Room.

Now that the colder weather is approaching, the ventilation of the dark room becomes an important matter, because one is tempted to secure warmth at the expense of fresh air, and because almost all systems of warming the dark room consume some of the oxygen and leave behind objectionable bye-products. To avoid this it is often possible to have the warming arrangement outside the dark room entirely, warming the air before it enters. This also gets rid of any trouble from the heating apparatus giving off light as well as heat. A small dark room can be very effectively warmed by arranging that the air inlet shall be formed of a length of, say, four-inch stove pipe, with two right-angle bends to act as a light trap. The pipe should slope upwards into the dark room, and, just before it enters the wall of the dark room from outside, the pipe should pass over an oil or gas stove, so arranged as to keep the pipe fairly warm. The end of the pipe must be far enough beyond the stove for there to be no chance that any of the products of combustion from the stove can enter it, and there must be a sufficient distance between the stove and the wall to do away with any risk of fire. For larger dark rooms and

work rooms nothing is quite so convenient as the "Radiant" stove, made by the Smokeless Fire Co., of Mortimer Street, London, W. This stove, which burns anthracite, can be so controlled as to keep alight without any attention for twenty-four hours. It can be left like this, just keeping the chill off, and then can be made to burn up rapidly when the room is wanted at a comfortable temperature, while it has the added advantage, from a photographic point of view, that unless required it emits no light at all. The stove always just alight is the best method, as it not only makes the room comfortable for working, but prevents the solutions from getting so cold as to be unworkable, or to deposit some of their contents as crystals.

A Government Department.

Sir Benjamin Stone, in his reply on the occasion of a presentation of an address to him from his fellow-members, said that in his opinion it was so important that photographic records should be made of historical events that the work should be officially undertaken by a Government department. He went on to say that it should not be left "to those wretched daily newspapers, with their untruthful representations, manufactured in some dark room." We hold no brief for the illustrated daily papers, and more than once have had to criticise them adversely for great errors of taste and good feeling in the production of their photographs; but when these are regarded simply as photographic reproductions, and the difficulties under which they are got out are taken into consideration, it is simply marvellous that such successful pictures should be secured.

Judging at Exhibitions.

We are glad to see that a reform we advocated very strongly in the past has now been very largely carried out, and that is the leaving of the distribution of awards at exhibitions in the hands of one man as judge. As some of our readers may remember, for some years before the pressure of business compelled him to discontinue travelling about to judge exhibitions, the Editor of *Photography and Focus* declined to act where he was asked to act with colleagues, on the ground that in all such cases in his experience the awards were either imposed upon the others by one strong-willed judge or were the result of a compromise. We note that the one-judge principle is strongly supported by "Camera" in the "Glasgow Evening Times," as being "the most satisfactory for the exhibitor. There will then be no clashing of interests, for if the tendencies of the judge as seen by his awards have gone too much in one direction, a judge with known tendencies in the other direction can be asked to judge the next year." There is no reason why painters should not be selected as judges of photographs, provided they are also artists; but a mistake often made when painters are chosen is the assumption that a man who is a painter is necessarily an artist. Of course, it is no more true than that every photographer is an artist; the percentage is about the same in both cases.

Permits to Photograph.

The article in "The Times" and the letter from the Dean of Peterborough, pointing out that as far as Peterborough Cathedral was concerned no permit was required, have drawn attention once more to the existence of a number of needless and harassing restrictions. These are, in the opinion of "The Times," greater in this country than on the Continent, and those who have photographed in France or Germany and in Great Britain can certainly bear out the statement that a permit is more often needed in the last-named than in either of the other countries. That permission from the Dean or from the Canon in Residence is necessary in the case of every cathedral except Peterborough and Manchester is shown by our contemporary "The Architect" this week, which has been making special enquiries and gives full particulars in each case. The most remarkable exception to the general rule is that of Manchester, where we are told "photographing is not allowed. Photographs can be bought at a cheap rate, the Dean and Chapter having employed a professional firm to make a series of beautiful photographs, bringing out all that is best to be seen in the cathedral." The idea underlying this statement is delightfully characteristic of the attitude of Deans and Chapters in general, the enlightened Peterborough excepted, towards photography. It is up to that most energetic body the Manchester Amateur Photographic Society either to show the cathedral authorities their mistake and get the regulations altered, or to convince the photographic world that there is nothing to photograph in their cathedral. A strong local society should be the mouthpiece of the photographic world in such cases as this, and we doubt not that the M.A.P.S. will look into the matter.

An Entirely New Competition.

NEXT week's "Photography and Focus" will have as its special subject the production of Christmas Cards by photography, several articles dealing with various ways of accomplishing this. "Carbon printing in Winter" is the title of an article by Mr. E. Ashton-Wood, in which that worker points out the special troubles with which the amateur who works the carbon process is likely to meet at this season of the year, and tells how they may be avoided. Mr. A. J. Jones describes the use of the dichromic screens to obtain stereoscopic transparencies in colour; and an interesting article by Mr. H. J. S. Anderton tells of a very simple and very cheap printing method, that is most suitable for winter evening use. Mr. W. Weaver Baker describes and illustrates another branch of winter indoor photography, in connection with which we shall give particulars of

AN ENTIRELY NEW COMPETITION.

which will extend well over the Christmas Holidays and will be open to all our readers. There will also be full page reproductions of exhibition pictures, in colours on art paper, and other features likely to make it an exceptionally useful issue.



Questions and Replies

REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only *one* will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

F H W (Penrith).—The largest aperture is f/8.

ENVELOPE (Crewe).—Our experience was perfectly satisfactory.

H & P LONDON (Marble Arch).—The formula is a good one for albumenised paper, but is not suitable for P.O.P. as at present made.

PERCY H BROOKS (Nottingham).—Liquid lenses are not now manufactured so far as we know. They have never been much more than curiosities.

MRS. SIMMONS (Bishopstoke).—The Zahnsdorf Albums can be obtained from Messrs. Houghtons, Ltd., 88 and 89, High Holborn, London, W.C.

ENGLISH (Thornton Heath).—Both the Thornton Pickard Co., Altrincham, and R. and J. Beck, 63 Cornhill, London, E.C., make what you require.

G S N. (North Berwick).—Penrose and Co., of 109, Farringdon Road, London E.C., would no doubt supply you. It is quite a well known dye stuff.

A. E. BRIGHT (Mitcham).—The makers are Staley and Co., 19, Thavies Inn, London, E.C. They will no doubt be pleased to give you full particulars.

TRIMMING SHAPE (Leicester) asks for the name and address of a maker of zinc patterns for trimming prints, ovals, circles, etc. Perhaps some reader can provide the information which he seeks.

J.G.L. (Belfast).—Not knowing your apparatus we cannot give you any idea of the exposure beyond saying that it will want about as many minutes as it would want seconds with rapid bromide paper.

HORACE HALL (Station).—A 5½ inch condenser will be required. Your lens will do excellently for the purpose. You will find a yellow glass cap a convenience; but it is a thing that can be made at home.

SUPPLEMENTARY (Dublin).—A "wide angle" supplementary lens will do what you want, but we should not advise the use of one of shorter focus than ten or twelve inches. This will more than double its speed.

OTEL (Chippenham).—The camera generally used for presswork of that kind is a reflex. A lens working at least as fast as f/4.5 will be necessary, unless you are content to get a great many underexposed negatives.

J. ROBINSON (Edmonton).—Messrs. Mawson and Swan supply gelatine skins for stripping purposes, and a line to them at Grange Street, Newcastle-on-Tyne, would doubtless bring you full particulars. Your other query is hardly explicit enough; besides, see rule 3 above.

AMATEUR RADNOR (Llandrindod Wells).—"The Hand Camera," by Wastell and Bayley, price 1s. nett or post free 1s. 2d., and "The Complete Photographer," price 10s. 6d. nett, or post free 11s., cover the ground. Both are written for the amateur who is unfamiliar with photographic phraseology.

KIDEY (Folkestone).—Your outfit will, no doubt, do very well, if your camera will extend far enough to enable you to focus the photographs the size you require them to be. All you have to do is to fasten them up in a good light and photograph them. You must not expect to get anything very good in the way of enlargements; as enlargements made from prints are never very satisfactory.

F R (Bournville).—The opalescence is due to a compound of mercury and gelatine. It is prevented by washing the slide in two or three changes of water to which hydrochloric acid between bleaching and blackening, washing with water also. The blackening may best be done with a metol or rodinal developer of the usual kind. We see no reason to doubt their permanence, and do not know a better.

E. MOSS (Southsea).—It is not practically possible to reduce carbon prints successfully.

R WARD (Manchester).—A very satisfactory one is supplied by Houghtons, Ltd., 88 and 89, High Holborn, London, W.C.

FOCUS (Ashby-de-la-Zouch).—The Aldis lens complies with your requirements in every respect. You could not do better.

S.E.B. (Brighton).—Any shop which sells microscopes and mounting materials will supply what you want for a few pence. No doubt there are plenty in Brighton.

PUZZLED (Striues).—The numbers refer to relative exposures, but are easily translated into the f numbers. If 1 is f/8, as we expect, 2 is f/11, 4 f/16, 8 f/22, and 16 f.32.

GEORGE (Nelson).—There is no such process at present. It has been talked about, and figures now and again in the lay press; but has certainly not yet reached the practical stage.

W T.B. (Moorgate Street).—We have an article elsewhere on the subject. There is nothing better than, if there is anything as good as, Brunswick black for the purpose.

S. L. SMITH (St. Helens).—The material marked 3 is that which we should select. The others are good, but no so good. If price is a serious consideration, either of them would do.

A W R (Lowestoft).—We have handed your letter to our advertisement department, asking them to do what they can; but the advertisements have been excluded because of complaints like your own.

STORAR (Aberdeen).—The distortion is not likely to be great enough to interfere in any way with its use for the purpose you name; but a little distortion is always present when the lens is a single one.

GLASS (Nottingham).—A good stand camera, with a swing back, and a rise of front, and a substantial tripod, would be best for the purpose. The best lens would be an anastigmat working, say, at f/6.5; but a rapid rectilinear would do very well, if the other is too costly.

WHIZZ (Guildford).—It is broken, undoubtedly, and we are not at all sure that it would pay to mend. We are inclined to advise you to throw it away and buy another, not necessarily of that pattern which is now a very old one. The same makers have in much newer and more useful one.

DIOGENES (Newbury).—Our publishers will supply a copy of "Real Colour Photography," price 1s. nett, or post free for 1s. 2d., which explains the matter at greater length than we can do here. Very briefly, the silver particles block out or obscure those dyed starch grains which are not required to build up the particular colour in question.

W. S. LINDSAY (Dublin).—It would be well to get "Intensification and Reduction," by H. W. Bennett, price 1s. nett, or post free from our publishers 1s. 2d. It describes several methods and points out the conditions under which each is the best. P.O.P. prints may be reduced with ammonium persulphate or with ferricyanide and hypo, as described therein; but it is poor economy to waste reducing baths on overprinted proofs. They can never be very good.

E. S. MAPLES (Mirfield).—No. 1 will want about sixty times the exposure of No. 2. Of No. 3 we have had no experience with magnesium. The nearer you can have the magnesium to the face of the print the better, but you will have to be very careful to shield the flame so that it does not shine into the lens. Probably four inches would be sufficient with f/11 with No. 2 if the enlargement was not more than two diameters; but it would be sound economy to use a plate making a series of exposures upon it, so as to find out definitely how much was required in the circumstances.

ISOLA (Newcastle-on-Tyne).—We are afraid we cannot help you. We know of no books on the photography of the nude.

SIGMA (Kenilworth).—The article on "Skies in Lantern Slides," by Mr. Kingham, appeared in our issue for November 10th last year.

DESPAIRING (Groombridge).—Our advertisement department is taking up your complaint, and will, we hope, secure you a prompt redress.

R. BURT (Mexborough).—The rule is a common one, and we cannot see that it can inflict any hardship on any exhibitor. What is your grievance?

C G. (Willesden Junction).—There is no law against it, but it is hardly the right thing to do, is it? Why not write and ask for permission; you would probably get it at once.

ENLARGER (Putney).—We think you must be under a misapprehension, as we can hear of no one in your district. A. B. Allen, 20, Endell Street, Long Acre, London, W.C., will no doubt do it for you.

T R.E. (Savernake).—There is no need to use so much metabisulphite. A weight equal to that of the pyro should be looked upon as the maximum, and actually very much less would do, say one dram in the ten ounces of water.

T N. OPIE (London, N.).—A sixpenny book published by Jonathan Fallowfield, 146, Charing Cross Road, London, W.C., will give you full particulars of the ferrotype process, all the materials for which can be obtained at that address.

A C.J. (Evanton).—It will only be possible to use it to enlarge negatives about 3¼ inches square, or if you are able to get your larger negatives up near the condenser, where the slides go, to enlarge a piece of that size out of them. It is not a very suitable apparatus at any time, and we doubt if the lens will give you very good definition.

J. RAHERY (Belfast).—The card has been sent back to you. The spots have been caused by chemical dust or some kind falling on its surface, presumably while it was drying. The composition of the dust we are not able to state. You would do well to look to the cleanliness of your work room and of the dishes, etc., that you use.

RETLAW (South Shields).—We are afraid we can give you no definite advice as to the cause of the blisters. There is nothing in your procedure to account for them, and we have used a great quantity of the paper named and have had no trouble whatever. We can only suggest that you take care all solutions are of the same temperature, and that the hypo is not too strong.

PAX (Ramsgate).—There is no reason why half-plates should not be coated with collodion emulsion; but there is no modern book in English on the subject of plate making. If you want to try and make some plates, a second-hand copy of Abney's "Photography with Emulsions" may be picked up for a shilling or two, and will be found to give particulars for their production. We do not quite understand what you mean by "transparencies." We had several articles on slide making a few weeks ago, which seem to cover all the ground.

HYPO (Ferme Park Road, N.).—The best way to print quarter-plate negatives on postcards is to get a printing frame large enough to take the postcard, and to put in it a piece of clean glass the full size which the frame will take, and on this a piece of thin cardboard the same size, with a hole the size of a quarter-plate cut in the middle of it. The quarter-plate negative is put into this, a mask of black paper adjusted on it, the card put on that, and the exposure made. This gives a picture with a nice white margin. A quarter-plate negative could be enlarged on to a postcard; but the other plan is preferable. Pencil marks on the mask will help to put the card in the right position.

Snapshots.

THE PROPOSED NEW CAMERA CLUB. A meeting of those interested will be held at the Gaiety Restaurant, Strand, on Tuesday, the 23rd inst., at 5.30 p.m. The Earl of Crawford will preside. At a meeting of some of the promoters held last week a guarantee fund of several hundred pounds was promised. All those interested in the proposed new club are invited to attend the meeting.

THE HONORARY SECRETARY OF THE WEMBLEY and Sudbury Camera Club, Miss Woodroffe having resigned, is Mr. S. C. C. Mitchell, of 37, Elm Road, Wembley.

SENSITISED CHRISTMAS CARDS are being issued by the Rotary Photographic Co., of 12, New Union Street, Moorfields, London, E.C. A specimen set of designs has been got out, and will be sent to any applicant amongst our readers who sends a postcard to the company asking for the "PFX" set.

A BROMOIL DEMONSTRATION, including the use of a new bleaching solution, is to be given by Mr. S. H. Williams at the Leigh (Lancs.) Photographic Society, at the society's room, Railway Road, Leigh, on Thursday, the 18th inst., at 8.15 p.m. Members of other Lancashire societies will be welcome.

ZOOLOGICAL PHOTOGRAPHY. The Royal Zoological Society of Ireland holds competitions every year for the best photographs of animals. The awards take the form of silver and bronze medals, which carry with them free entry to the society's zoological gardens for the year. The silver medal this year has not been awarded, but the bronze medal for competitors under eighteen years of age has been won by Samuel M. Linden.

A NOCTURNAL OUTING. The North Middlesex Photographic Society had an evening outing in London on the 29th ult., led by Mr. A. H. Blake, M.A. At 7 p.m. they were admitted to the enclosure in the middle of Leicester Square, and set to work with fast plates and large apertures to record the fine effects of light and shade to be obtained amongst the trees facing the Empire and Alhambra. Thence they made their way to Trafalgar Square and the Embankment, finishing up about 10 p.m. at a Strand restaurant. Twenty-three members were present, and amongst them nearly a hundred and twenty plates were exposed.

ENLARGING. Lantern-slide making and projection are dealt with in a thoroughly practical manner in a booklet which will be sent free of charge to any of our readers who send a postcard for it to the Thornton-Pickard Manufacturing Co., Ltd., Altrincham.

"THE GROWTH OF THE PHOTOGRAPHIC IMAGE" is the subject of the Traill Taylor Memorial Lecture, which will be delivered by Mr. A. W. Porter, B.Sc., F.R.A.S., at the Royal Photographic Society, 35, Russell Square, London, W.C., at 8 p.m., on Tuesday, November 23rd. Admission is free.

THANKING THE DEAN. The North Middlesex Photographic Society passed the following resolution at its last meeting: "That a vote of thanks be given to the Dean of Peterborough for his kindness and public spirit in deciding to allow photography in Peterborough Cathedral with [? without] restrictions."

AT THE EXHIBITION OF THE BLACKBURN and District Camera Club, the Stanworth Shield was won by W. Baldwin and the Mayor's Plaque by Henry Neville. In Class B, the first prize went to W. L. Crossley, the second to W. Birtwistle, the third to W. Ernest Balme, and the fourth to W. Baldwin. In Class C, W. E. Blackshaw was first, E. J. Bullough second, W. Josty third, H. Killingbeck fourth, and G. H. Goldsmith fifth.

COLOUR PHOTOGRAPHY was the subject dealt with by Mr. A. N. Somerscales at the Hull Photographic Society. The phrase "colour photography," he said, is not quite accurate when applied to the various processes by which coloured pictures are produced in the camera. The deposit of silver in the film, which forms the photograph, may be a positive or a negative, grey or coloured, light or dark; but the colour of that deposit never, so far as he knew, had any relation to the colour of the object photographed. As far as the chemical action of light in photography is concerned, we always obtain a monochrome picture. In that sense colour photography, outside the laboratory, does not exist to-day. The colours are upon the plate when it is put into the camera, they are upon the plate when it is purchased. The colour we see in nature, the blue of the sky, the green of the fields, the red glow of the sunset, the blush of the rose, all comes from the sunlight; it is all filtered out of the light of the sun, by sky or sea, fruit or flower.

THE RAJAR CAMERA for the best print on Rajar papers has this month been awarded to E. F. Guiton, of 16, Royal Square, St. Helier. The paper was bought from T. Le Seelleur, of Beresford Street, St. Helier.

THE LUMIERE BUSINESS for England and the Colonies, except Canada, as far as kinematograph film is concerned, has been acquired by the London Cinematograph Co., Ltd. We are informed that this will in no way affect the strictly photographic side of Messrs. Lumière's business over here.

AUTOCHROME METHODS. Dr. Inglis Clark, lecturing to the Midlothian Photographic Association, said that the autochrome plate after exposure could be rendered sufficiently non-orthochromatic by immersion in a solution of potassium bisulphite for half a minute and washing for half a minute, before developing, to allow of development in an ordinary yellow light without fear of fog. He recommended rodinal as the developer, and advised full development, as only by this means could the fullest brilliancy be obtained. He used an acid solution of potassium bichromate for reversal, and for intensification preferred mercuric chloride, blackening with a solution of sodium sulphite.

THE THORNTON-PICKARD COMPETITION is now judged, and the list of winners is given below. The company informs us that it is organising a similar competition for 1910, when cash prizes to the amount of £100 will be awarded. Awards: Class 1a—First prize, £5, Colmar Wocke; second, £3, Mrs. H. H. Hart; third, £2, G. W. Gilbert; three prizes of £1 each, R. J. Delf, Mrs. Mahoney, and H. E. Franzmann. Class 1b—First prize, £5, Edgar Simpson; second, £3, Adolf Lutz; third, £2, A. Hill Griffiths; three prizes of £1 each, Keith Dannatt, Dan Dunlop, and S. G. Kimber. Class 2—First prize, £3, W. Foster Brigham; second, £2, Graystone Bird; third, £1, A. W. Sargent. Class 3a—First prize, £5, Jas. Hunter; second, £3, Miss Frances Pitt; third, £2, W. Baldwin; three prizes of £1 each, Henry Warner, A. H. Yelland, and F. J. Whitworth. Class 3b—First prize, £5, Keith Dannatt; second, £3, J. Cruwys Richards; third, £2, D. Brigham; three prizes of £1 each, Miss A. M. Walters, T. Everitt Innes, and Miss A. Tomlinson. Class 4—First prize, £5, R. J. Delf; second, £3, J. R. van Nyendaal; third, £2, Miss Penrice; three prizes of £1 each, A. Sumpter, Rev. E. Travers Clark, and S. G. Kimber. Class 5a—First prize, £3, E. W. Tattersall; second, £2 W. E. Boyle; third, £1, Dr. East; four prizes of 10s. each, C. J. Rexstraw, J. C. Stevenson, G. A. Kemp, and J. C. Spurgin. Class 5b—First prize, £5, J. C. Stevenson; second, £2, Fred Sklenka; third, £1, Thomas McKenzie; four prizes of 10s. each, Geo. Smith, J. Sandilands, Miss E. Pepper, and Miss Dorothy A. Pitt. Class 6—First prize, £2, Miss Frances Pitt; second, £1, S. W. Shore. Class 7—First prize, £5, Chas. Kirk; second, £3, H. E. Franzmann; third, £2, Allen Lonsdale.

Making Bromide Prints in Two Colours.

A Simple Method Demonstrated by Dr. D'Arcy Power at the California Camera Club.



WHEN a bromide print has been made, there are several different ways by which it can be toned in two colours, or modified so that one part is of a warm and another of a cold tone. Some of these methods were demonstrated by Dr. D'Arcy Power at a meeting of the California Camera Club, which is reported in the current issue of "Camera Craft." Much of Dr. Power's address dealt with the pictorial reasons for using two tones, into which he went very fully. We give below an outline of the methods he has found satisfactory. It is well known that a bromide print can be toned to a fine sepia by applying to the finished print a solution, each ounce of which contains two grains of potassium chloroplatinite, one grain of mercuric chloride, and nine grains of citric acid. The solution may be brushed over the print, and when toning is complete the print is washed in running water for a quarter of an hour, and dried. If such a print is gone over with a brush charged with an ordinary amidol developer, wherever that developer touches an intense black is produced. This method works well with certain subjects, and a print so made which has been on the walls for three years has shown no sign of change in that time.

Another method of toning bromide prints is first to tone them to a sepia with sulphide in the usual way, and then to immerse them in a toning bath of sulphocyanide and gold chloride. This turns the sepia to a fine red chalk colour. Now it is possible to tone parts of a print with sulphide, leaving the rest untoned; and Dr. Power tried the effect of placing in the sulphocyanide and gold bath a partially toned print of such a character. "The result was a surprise and a revelation." Both parts of the picture would tone, but in opposite directions, the plain black of the silver turning to blue-black, and the brown of the sulphide passing through various shades of brown to red chalk. Here is Dr. Power's description of the process in his own words:

The first thing to do is carefully to study the print, working out beforehand where the second tint is to be placed, remembering that the composition will be controlled by it; also that one must beware of abrupt juxtaposition of the two tints, unless the nature of the picture calls for it. We must remember also that colour composition demands that a little of the cool tint appear in the warm portion of the picture, and suggestions of warmth in the cool surfaces, otherwise the effect is unpleasant and crude. These determined, one is ready to proceed.

The print is usually best handled damp, but quite surface-dry. A little bleaching solution made by mixing a ten per cent. solution of potassium ferricyanide and a five per cent. solution of potassium bromide is placed in a saucer, and a camel's or sable's-hair brush is charged with a very little of it, using it, in fact, almost dry. With this the outlines of what is to be the warm tint are carefully traced, the surface bleaching as the brush passes over it. If at any point it is desirable to unite the cold and warm areas by a colour half-tone, the effect can readily be produced by applying the bleaching solution as a fine stipple. The print is then washed for five minutes in running water, and if at any point it has been bleached beyond the line intended, the brush may be charged with a little developer and the place locally redeveloped to the desired extent. The print is then washed, placed in the usual one per cent. solution of sodium sulphide for three minutes, and washed until it is free from odour. The bleached parts are now brown, the rest black silver.

The print is next immersed in a bath consisting of gold chloride one grain, ammonium sulphocyanide ten grains, water twenty ounces. In this the silver becomes blue-black,



SO STERN AND SAD. BY W. BALDWIN.

From the Exhibition of the Blackburn and District Camera Club.

and the brown sulphide passes through a series of tints to red chalk. The print is to be taken out and washed when the required colour is obtained. If it is desired to carry the change further at one point than at another, the varying degrees are easily obtained by swabbing it locally with cotton-wool charged with the gold toning solution.

Finally, if the values or even outlines of the bromide print are defective, they can be modified before proceeding to make the colour modification. By a method fully described in *Photography and Focus* for December 8th, 1908, page 630, a bromide print may be modified almost as freely as by gum printing.

A Quick Printing Apparatus for Postcards.

A Time Saver for those who want a Number of Prints from One Negative.

WHEN there are a great number of postcards to be turned out in a limited time, the ordinary printing frame takes far too long to be commercially effective, and some arrangement for increasing the speed of printing becomes essential. Mr. Watmough Webster has been describing in the "Photographic Times" a very simple device he constructed at home for the purpose. It consists of an ordinary wooden box, with part of its upper surface glazed with a piece of plate-glass. Lying on the floor of the box is an incandescent electric lamp, and between the lamp and the plate-glass is a sheet of yellow glass so arranged that it can be withdrawn and replaced in a moment.

The plate-glass on the top of the box is crossed by a wooden straight-edge with another at right angles to it, thus ⊤ One end of the long strip is loosely held down to the box with a screw; the other end is held down by a tripod screw, so that it can be clamped or loosened directly. The negative is slipped under this angle piece, and on the negative a piece of obscured glass the exact size of the postcard is adjusted over the portion of the negative that is to be printed to act as a guide.

The wooden angle piece is then brought up close to the obscured glass and clamped. This holds the negative in position, and the angle between the two straight-edges acts as a guide, the sensitive card being pushed up into it and pressed down by means of a block of wood with a handle.

To use the appliance, a card is taken, pushed up into the angle of the guide with one hand, and the block is pressed down upon it with the other. One hand is then free to withdraw the yellow glass slide for the requisite time of exposure, and then to replace it. That card is at once changed for another, and the process repeated until all those that have to be printed are done.

The electric lamp lies on a piece of asbestos millboard, to prevent it from scorching the woodwork. If electric current is not available, the apparatus can be modified without much trouble to work with a lamp or gas, the light being at the side and properly enclosed, and shining on a mirror, arranged at an angle of 45°, below the plate glass.

In Mr. Webster's own apparatus, he tells us, the yellow glass slide was made by taking a waste negative, removing the whole of the image with ferricyanide and hypo, and then staining the film a deep colour by immersing it in a solution of "brilliant yellow" dye, drying, and varnishing it.

The cost of such an apparatus is very trifling; a rough deal box will do as the basis for it, and may be neatly covered with brown paper to make it light-tight.



A MANXLAND HARBOUR. BY R. HARRISON.

From the Exhibition of the Blackburn and District Camera Club.



A Darkroom Dialogue

"THE exhibition will soon be on us again," remarked Lawson the other evening. The three friends were in his dark room, where they had gone to look at a new enlarging apparatus he had bought.

"I suppose this is going to be pressed into service in preparing some prints for the show," said Oliver, putting his hand on the enlarger.

"I hope so," said Lawson. "They don't pay much attention to little prints nowadays."

"You have certainly got a gorgeous outfit," his friend went on to say.

"You have not seen the best part of it yet; look at this," and Lawson held up the negative carrier to their admiring gaze. "You can shift the negative in this in all directions, tip one side or the other up, so as to get the picture nice and square on the screen. You can even swing the negative backwards or forwards, as with a swing back, although I don't quite see what good that is. I always thought it was important to have the negative and the easel strictly parallel."

"So it is," said the sunburnt man, "unless you want to introduce a little distortion, and then that swinging movement comes in handy."

"I'm sure I shall not want to introduce distortion; so that particular movement will not be of much service."

"I'm not so certain about that. Have you never made a negative with your hand camera, in which, from the camera having been tipped up a little, the vertical lines have seemed to be falling towards each other at the top?"

"Often," said Lawson. "Sometimes it is the only way by which I can get the picture on the plate at all. When the building is a very high one, it is all I can do, as the rising front on my camera has not got much of a lift."

"Well, then, when you have got a negative with distortion of that kind in it, by swinging the negative while enlarging it, you can get distortion of the opposite kind, and so put things right again. That is what that swing is for."

"By Jove!" said Lawson, "I had never thought of that. It's a fine idea. I shall be able to use two or three negs. that I thought were wasters. They're very good ones, barring that falling together of the lines."

"You know, I don't altogether approve of that tipping business," put in Oliver. "It is all very well to say it remedies the distortion. It does to a certain extent; it makes the negative look right, but it does not really put it right altogether, because it foreshortens it at the same time. If a negative with the vertical lines not parallel is swung in the enlarger until they are right, the height of the building on the screen is reduced, so that actually there is still distortion present, but of a different kind."

"It is not fair to call it distortion," said the sunburnt man.

"But if it makes the building look too short, what is it but distortion?" replied Oliver.

"Does it make the building look too short?" replied his friend. "I think not. It may make it shorter than it is on the negative which has the tilting lines, but that is all. Do not you see that there must be some sort of distortion, if you will call it so, even when you are so strictly orthodox as to use your swing back on the camera? No one thinks of calling that distortion, and here you have exactly the same thing."

"Do you have the same thing?" persisted Oliver.

"What I am not clear about," said Lawson, "is how you find out how much to swing the negative to put things right."

"Nothing easier," said the sunburnt man. "You simply swing it until the vertical lines are seen to be parallel on the screen."

"Here is a wrinkle for you," said Oliver, "which I have found useful myself. You will have to stop down a great deal to get the picture sharp, especially if the negative has to be swung very much; and so, if the negative is at all on the dense side, you may not find it easy to see the vertical lines on the screen, to know whether they are parallel or not. If so, before putting the negative in the enlarger, rule two fine lines on the film with a pencil, parallel with the tilting lines, but near enough to the edges of the plate not to come on the picture, and then, putting the negative down on a flat surface, cut those lines right through the film with a sharp knife. They will then show up splendidly on the screen, and however much you stop down, you will be able to see them clearly, and can swing the negative until on measuring them on the screen they are the same distance apart at both ends."

"That seems a very good dodge," said Lawson.

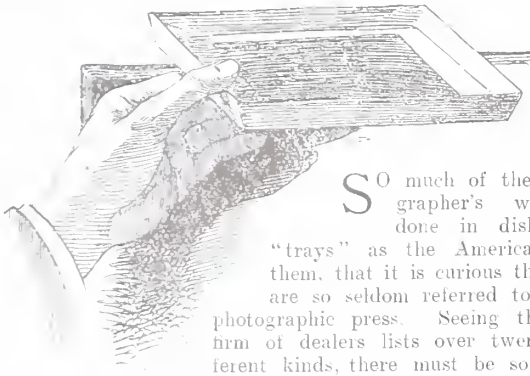
The lines would serve another useful purpose," put in the sunburnt man; "they would be excellent things to show when the image was sharp. You want something of the sort when enlarging with a very small stop."



Merriment. *By Leonard Gadsden.*



"Bogey" by Mrs Helen Parsons No 156 at the R. P. S.



Dishes. By P. W. Scott.

SO much of the photographer's work is done in dishes, or "trays" as the Americans call them, that it is curious that they are so seldom referred to in the photographic press. Seeing that one firm of dealers lists over twenty different kinds, there must be something to be said on the merits of the different kinds, and on their suitability for the many different purposes to which the photographer puts them.

My own stock of dishes is a varied one. It includes a number of vulcanite or xylonite dishes, which are the maids-of-all-work, so to speak, and are used for the great majority of the purposes to which dishes can be applied.

I like xylonite dishes for more reasons than one. They are not at all likely to break; they pack into a very small space; they are economical of solution, as they are flat and the plates lie flat upon them; they are easily kept fairly clean; and from their flexible nature they are the easiest of all dishes from which to pick up a negative. Put one thumb on a corner of the plate, and with the other fingers of the hand under the dish pick it up, and the weight of the liquid will cause the dish to bend so that the plate may be picked up at once with the other hand. On the other hand, it is probably easier to ensure a porcelain dish being *quite* clean, and the deeper forms of porcelain dish certainly can be used with less spilling of the solution than seems to be inevitable with the shallow patterns made in xylonite.

My fixing bath is always kept in a large deep porcelain dish, which is never used for anything else. This is important, as when once a dish has been used to hold hypo for any length of time it seems impossible to get it perfectly clean again. There will be little cracks which, if the dish is put aside, may actually exude feathery crystals of hypo.

Two or three porcelain dishes of quite spotless appearance are used for toning prints, and these are never employed for any other purpose, except for washing prints, for the acid baths in platinum printing, and for washing negatives when a big batch necessitates all available dishes being pressed into service. On such an occasion, also, two large wooden dishes (24in. × 18in. inside), which are otherwise kept for enlarging purposes, are useful. These dishes, made of deal and lined with oilcloth, cost something less than 7s. the two—not a fifth of what porcelain dishes would have cost, and are both lighter and unbreakable. They, with a few tin dishes, made originally, I believe, for cooking purposes, which are used chiefly for carbon printing, constitute the entire outfit. It has not cost very much money, but it answers fully all requirements.



LANDSCAPE. BY H. NEVILLE.

From the Exhibition of the Blackburn and District Camera Club.



A Critical Causerie

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

THE photography of moving objects is not in itself difficult; the "artistic" photography of them is very difficult indeed. To render a moving object so that it shall at once convey the impression of movement and of restfulness is a problem which plenty of good photographers have never solved; and which others have only solved by the clumsy process of exposing so many plates that a successful fluke or two is inevitable.

When I say that the moving object should be restful I mean rather that it should be so arranged that the critic of the picture should not feel unrestful in looking at it. This is largely a matter of skilful composition; we all know the difference between a restful arrangement of lines and a disturbing one. In instantaneous photography there must be something more than skilful composition of the main lines and masses. There must be a meticulously precise seizure of the instant when the moving object is not only at its right spot in the composition, but is in its right posture.

Many a street scene is spoiled, not because the figures in it are at the wrong points of the composition, but because the separate legs and arms of the said figures are caught in angular attitudes. Everyone has had some atrocious example of the street scene ruined by the marionette-man striding gawkily across some open space, with his nether limbs like a pair of compasses. The same man, in the same spot—and obviously with the same pair of legs!—would have been all right if those legs of his had been caught a fraction of a second previously or afterwards, merely with their angle a shade less obtuse.

(Funny that in this particular instance an acute angle should be more representative of repose than an obtuse one. Surely one might, at first thoughts, have imagined the reverse to be, normally, the case? No matter.)

I am not going to talk of street scenes this week; for these reflections were aroused by a hasty run through



The Harvester. *By G. F. Hide.*

a mass of harvesting pictures which arrived not long ago, and most of which, by their nature, were records of moving objects. Now harvest fields, though scenes of strenuous activity, always ought at the same time to have a tinge of reposefulness. Harvest, at any rate to the layman's eye, represents the finale of a year's labour—the goal and the happy ending of a long and often weary chapter of life. Instinctively realising this, most painters and photographers of harvests render them "at eventide"; the sunset sky helps the effect of finality. All things considered, it seems to me plausible to claim that a harvest scene requires the keynote of restfulness more emphatically than any other type of snapshot photograph.

Yet one of the best harvest scenes of my batch fails in this particular. It is called "Leading In," and is as pretty a piece of pure photography as one could wish to meet with—barring this solitary defect. The sky, if not strictly an evening sky, at any rate



Leading In. *By C. D. Paton.*



has depth and serenity; it is not a "threatening" sky, which would be quite the wrong sort of sky for harvests. The cart and horse are rendered in nice perspective, the horse's head not being elephantine and its body tapering and mouse-like, as so often occurs in snaps with hand camera lenses. The distant tree fills a gap, and to some extent balances the cart. Notwithstanding all these merits —which I most heartily praise—this picture does not satisfy. It does not satisfy because—well, it is too instantaneous.

This sounds a childish, or frivolous, complaint. But inspect the picture impartially, and I think you will see what I mean by my phrase "too instantaneous." Look at the arrested motion, look at the poised bundle of corn; the man lifting it and the man with outstretched arms receiving it. Do you not wish that the bundle would, once for all, descend into the cart and have done with it, instead of hovering in mid-air like this? Do you not wish that those two poor frozen wretches, in their strained positions, could relax? Does not, in short, the fixity of the tableau irritate you a trifle?

I grant that successful pictures of this very moment of the harvest scene have been made. Mr. Alex. Keighley showed one in this year's R.P.S. Exhibition, and a beautiful, calm, poetic thing it was. But it had not this there frozenness, this unnatural rigidity.

What is the cause of the fault? Partly, I think, the simple fact that the aim has been too right-angled. Just as our striding man, in the street scene, might have looked restful enough had he been walking towards the camera instead of across its line of vision, so this harvester might have seemed less strained had he been viewed rather less from one side. But there is something deeper in this picture's failure than that, and I am compelled to confess that I am at a loss to analyse it. I can simply assert that, by a fraction of a second, the wrong moment has been registered.

It is not that the effect aimed at should not be instantaneous; it is that it should not be what I label "too instantaneous." A print called "The Harvester" is instantaneous without being too instantaneous. By some mysterious means this print is infinitely more restful, though it represents vigorous activity, than "Leading In." Technically, it is less perfect. It is under-exposed. The very fact of its under-exposure seems, ironically enough, to help it. For one thing, the man's legs are in deep shadow; even his scythe is only hinted at sufficiently plainly for us to credit its presence. Possibly, too, the round-arm motion of scything is inherently a more serene movement than the up-thrust of the man loading the cart. With all these merely theoretical explanations we can only come back to the palpable fact that "The Harvester" is restful and "Leading In" is not, though both are shutter exposures.

Observe, before we pass on, how the misty planes of distance behind the harvester aid in the general motif of restfulness. Not only so, but they throw him up and emphasise him, just as in Millet's famous "Angelus" the peasants are emphasised. As I said before, under-exposure is partly to be thanked for this.

The theme is treated on a larger scale in "Harvesting," but not so successfully. This worker has tried to give us, so to speak, too much for our money. His view is too panoramic and all-embracing. The field by itself is beautiful; but the reaping machine is dangerously near the verge of the subject, and the men working behind it make spots of interest which distract attention both from the machine and from the nice lines of the stubble.

There is a certain deliberateness in the composition, however, which I must acknowledge, especially when I examine some of the other prints which now lie beside me, and which represent reapers absolutely and crudely central in their compositions, viewed merely, one would say, as odd mechanical contrivances in action. Just how this worker should have rearranged his picture (by altering the position of his camera) I cannot say. It is only fair to add that the picture, even as it stands, does not suffer from the suspended-animation fault of "Leading In."

An untitled print is the last I shall deal with; and the fact that though it is untitled, and though it is out of focus and in other respects technically poor, we can still appreciate it and grasp its meaning, is significant. With all its sins it strikes me as a good and honest piece of work. And, though the attitude of the scythe-wielder is restful, it is tremendously muscular. There is arrested animation here, but it is arrested at precisely the right juncture. Although at the commencement of a fine sweep of the scythe, and although fixed in that attitude by the camera for ever and ever, we have no uncomfortable feeling that the scythe ought to finish its stroke if we are to be satisfied. The scythe is as poised in mid-flight as the bundle in "Leading In" is poised; but the former is satisfying and the latter unsatisfying.

Why should this be so? Alas, I cannot tell. These are problems which critics, far wiser than I, could not elucidate. We can but learn their inwardness by practice and conscientious observation and comparison of results. It can only be said that there is a profound difference between an artistic instantaneous photograph and an inartistic one; and that subtle difference it is our business painfully to discover, each one for himself.



Harvesting. *By Charles Scott.*



MAKING THE BEST OF IT

A Series of Suggestions for Making Good Prints from Poor Negatives

By Chas. M. Lewis. (Special to "Photography & Focus.")

Blisters and Frilling.

THESE faults were the greatest bugbears in the early days of dry plate work, but now, fortunately, are almost unknown, except in hot climates. The cause of both is the same. The negative has been placed into some solution at too high a temperature, or it has been transferred from one solution to some other at a greatly different temperature, or it has been put into a liquid that is too strong in alkali, or in some other substance which attacks gelatine.

If a negative has been stood up to dry, and the free water has run off its surface, a good deal can be done to minimise the effect of a blister or a frill by painting the part affected with spirit of wine applied with a camel-hair brush. This will never restore the film to its original condition—there will always be a mark to show where the frill or blister was—but it will not be so bad as if it had been left to dry untouched. The reason why such a defect shows on the prints is that the gelatine has expanded, thinning the image so that it prints darker, while it may dry down in a fold which will print lighter. A spot which prints out lighter than the rest is dea't with comparatively easily, the print being merely toned down a little with water colour or pencil; but if it is already too dark it cannot easily be made lighter. So that the best way to conceal either a blister or a frill is to apply a little retouching medium to the negative, and then just to pencil those parts which are thinner than their surroundings until they are so no longer. Then a little work on the print, if it is necessary at all, will conceal the fact that there has ever been a frill or a blister in the case.

Silver Stains.

THERE is no commoner defect to be met with than the red or black spots which result when an unvarnished negative is printed on P.O.P. or some other silver paper, and gets damp during the process. Whether it is that paper or negative is damp before the printing is put in hand, or whether the printing frame is left out in the rain, the result is the same. The gelatine of the negative absorbs some of the soluble silver salt from the paper; this darkens in the light and spots the negative. The trouble is that these spots are of much the same composition as the image in the negative itself, and that therefore anything which attacks them is almost sure to attack the image also.

A fairly strong ferricyanide and hypo reducer applied almost momentarily will sometimes remove them without affecting the image, but it is very risky, as if it is left on for more than a few seconds it will be found to reduce the image as well as the spots. A cure, which is said to be effective, is to place the negative that is stained in an ordinary combined toning and fixing bath, leaving it therein for any time up to an hour, or until the spots have disappeared. Unless they are very bad indeed, it is better to ignore them, and to make the print from the negative without exposing it to the risks which re-wetting always involves, and to spot them out afterwards on the finished mounted print.

Halation.

OVER-DEVELOPMENT and the use of unbacked plates are the chief causes of this most annoying defect, which takes the form of a haze or glare round the highest lights of the picture, especially when these are intensely bright compared with the rest of the picture, as in the case of the windows in an interior. The use of a developer containing a quantity of potassium bromide also favours the production of halation. By employing backed plates, and by taking care not to over-develop, it may be avoided entirely, even when other circumstances seem to be peculiarly favourable to its production.



An Idle Canal.

When halation is present in a negative there are two methods by which it can be attacked. The first is by rubbing down from the surface, using a piece of cotton wool moistened with methylated spirit and squeezed almost dry. As the negative is rubbed, the wool will be seen to blacken with the silver that is being rubbed off, and the parts where the halation is are gradually made more transparent.

When the halation goes over, say, a window making its details, stonework, etc., print too light, this remedy is fairly effective, but it has the drawback that it does not actually remove the halation but the image, gradually lightening this until what is left of the image *plus* the halation is of about the right density. The consequence is that where there is much detail concealed by the halation, the method fails, as it removes the detail itself.

The treatment, which has been christened "rehalogenisation," is more elaborate, but has the advantage that if properly carried out it does actually remove the halation, leaving the image unaffected. The negative, which must have been thoroughly washed after fixing, is placed in the following solution until it is bleached right through.

Chromic acid	20 grains.
Potassium bromide	50 grains.
Water to	10 ounces.

It is then well washed and developed with some non-staining developer, one of the best for the purpose being the amidol and sodium sulphite developer, such as is generally used for bromide paper work.

Photographer and Model.

A Clever Book by Mr. Cavendish Morton.

PHOTOGRAPHY was never better used for illustrating purposes than in a most remarkable book which has just been published, price 5s. nett, by Messrs. Adam and Charles Black. Its author is Mr. Cavendish Morton, whose work has appeared in our pages from time to time, and his subject is "The Art of Theatrical Make-up." The author, who has had many years' experience on the stage, describes in detail how various characters are to be embodied, illustrates the successive stages of the make-up with photographs of himself, and finally gives a series of full-page pictures of some twenty characters, including King Lear, Hamlet, Uncle Tom, Romeo, Falstaff, and St. Dunstan. One of these, Shylock, we reproduce on this page, together with a smaller portrait of Mr. Cavendish Morton, in the act of making-up.

The pictures are in many cases something more than mere illustrations to the letter-press, and are interesting as pictorial expressions of the character, and are a wonderful testimony to the author's dramatic, as well as photographic, skill.



The author making up.



MR. CAVENDISH MORTON AS SHYLOCK.

In looking through the pictures in this book, where so many are so good, we could not help being struck by the one which to our thinking is the least successful of all.

We are familiar with a great many of the pictures of the first Napoleon, and those who have had the pleasure of meeting Mr. Cavendish Morton know that that gentleman in the flesh bears a very striking resemblance to the great Emperor; but, strangely enough, his impersonation of Napoleon in his coronation robes is quite the least successful of the lot.

There must be many photographers who will be glad to get a copy of this clever production, and many who will sympathise with the author as he tells how he was his own model throughout, making up for the part, photographing himself, and then, still in his make-up, going into the dark room and developing the plate to see if it was a success, or if the operations had all to be done over again.

He says, in the conclusion, that "the playing of the dual *rôle* of actor and photographer seems to have cultivated two distinct personalities—personalities who I am sure felt the liveliest interest one for the other; in fact, nothing ever came between us but the camera." We congratulate both heartily on so successful an outcome of their joint labours.



WHERE THE IRIS GROWS. BY W. ERNEST BALME.

From the Exhibition of the Blackburn and District Camera Club.

Suggestions for River and Lake Subjects.

"By rushy brook."—*Shakespeare.*

"There is a river grows aslant the brook
That shows his hoar leaves in the glassy stream."
—*Shakespeare.*

"An oak whose antique roots peep out
Upon the brook that brawls along."—*Shakespeare.*

"The current that with gentle murmur glides
Makes sweet music with the enamelled stones,
Giving a gentle kiss to every sedge
He overtaketh in his pilgrimage."—*Shakespeare.*

"Beneath the floating shade
Of willows grey, close-crowding o'er the brook."
—*Thomson*

"The wild brook babbling down the mountain side."—*Beattie.*

"Where the lake slept deep and still
Dank osiers fringed the swamp."—*Scott.*

"Pastures beside the pacing brooks."—*Ruskin.*

"Like a fair sister of the sky,
Unruffled doth the blue lake lie,
The mountains looking on."—*Wordsworth.*

"Fiercely ran the current
Swollen high by months of rain."—*Macaulay.*

"Beside the water's rushy brink."—*Gray.*

"Where gray-green willows fringed the stream and pool
—*Mrs. Nesbit*

"A sloping green of mossy tread
By a clear pool."—*Keats.*

"Beside the still waters."—*Psalms.*

"With many a curve my banks I fret."—*Tennyson.*

"I chatter over stony ways."—*Tennyson.*

"When peaceful rivers, soft and slow,
Amid the verdant landscape flow."—*Addison.*

"No more thy glassy stream reflects the day,
But choked with sedges works its weedy way."—*Goldsmith.*

"The never failing brook."—*Goldsmith.*

"The flowing river with its pebbly bed."—*Ruskin.*

"Among the reeds by the river low."—*Thoreau.*

"By the margin, willow veil'd,
Glide the heavy barges trail'd
By slow horses."—*Tennyson.*

"A winding brook
That babbled on through groves and meadows green."
—*Wordsworth.*



PEATELLA (Copyright B. Ward-Thompson).

From the Exhibition of the Blackburn and District Camera Club

BY B. WARD-THOMPSON.

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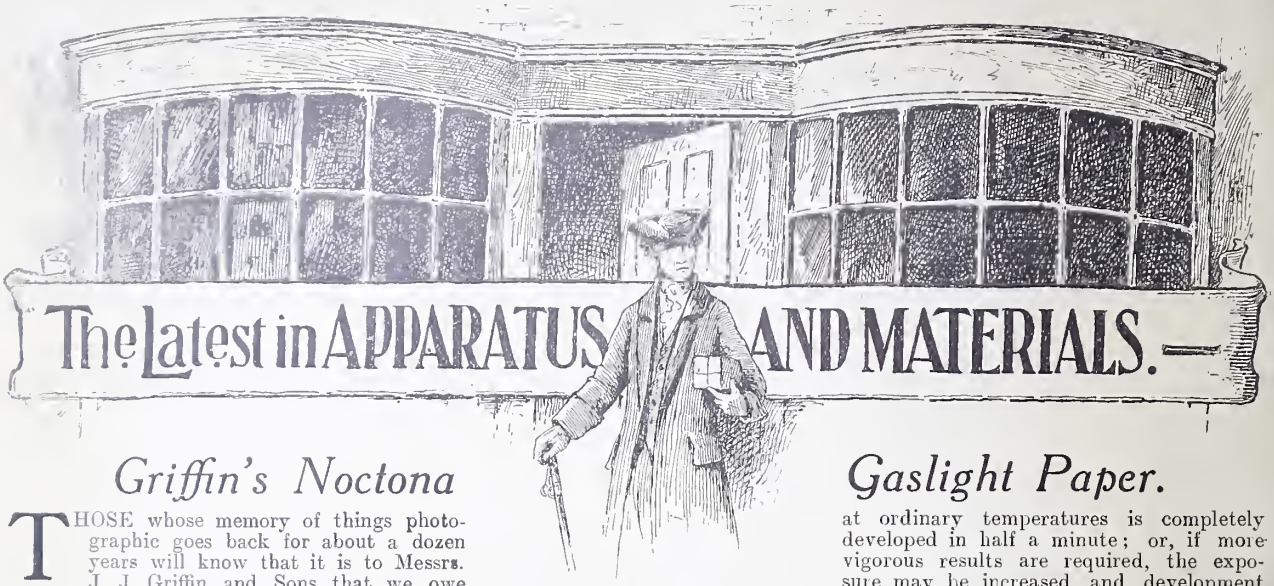
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The Latest in Apparatus and Materials.—

Griffin's Noctona Gaslight Paper.

THOSE whose memory of things photographic goes back for about a dozen years will know that it is to Messrs. J. J. Griffin and Sons that we owe the introduction of "gaslight" paper to workers in this country, and much of its present-day popularity has been due to their skilful and persistent advocacy of its merits and conveniences. Now they are placing on the market a gaslight paper of their own make, produced at their works at East Molesey; and Noctona, as this new product is called, has been in our hands under trial during the last few days, and is the subject of this present review.

Noctona, we may say at starting, is made in three grades—"pearl-matt"; "satin," a semi-glossy paper; and "glossy," which, like pearl-matt, describes itself. Postcards can also be obtained in any of these grades; and the paper and cards are supplied in all the usual sizes, at ordinary prices, the price of all grades being the same.

The instructions point out that for an average negative, free from stain, at five inches from an incandescent gas burner, the exposure is twenty-five seconds, and this we found to be a very fair guide. It must not be taken too literally, since not only is "an average negative" rather a vague term, but the light from an incandescent gas burner is at least as vague. It will do for the first exposures, however, and the photographer will soon learn whether his negative and burner are average or not. He will be greatly helped in doing this by a little tissue paper "exposure meter," which is inserted in every packet of Noctona up to half-plate size, and enables the correct exposure to be ascertained by a single experiment. While on the subject of exposure, we may point out that the makers claim for Noctona that it is suitable for any class of negative, a hard negative merely calling for a slightly shorter exposure and a longer development, thin negatives needing full exposure and short development. There is no doubt that, provided the variation in density is not too great, Noctona can in this way be used for negatives that differ considerably in contrast.

The developer recommended is metol-hydrokinone, and the fixing bath an acid hypo one. The instructions give formulæ, but Messrs. Griffin also supply these ready prepared, under the title of Mequin and Acifix. The properly exposed print at ordinary temperatures is completely developed in half a minute; or, if more vigorous results are required, the exposure may be increased, and development thereby quickened to about a quarter of a minute. On the other hand, softer prints can be got by the opposite procedure. But these and similar details are all to be found in the instructions which are enclosed in each packet of the paper, and to these instructions we must refer our readers for fuller details.

We may say at once that the results of our trials were perfectly satisfactory. Every piece of Noctona on which we made a print developed up clean and bright, we had no trouble from stains or surface markings, and the whites were actually white, and not grey. We made quite a number of prints from one negative, varying the exposure and time of development to test the range of variation in the contrast which was possible; and found a degree of control in this respect which certainly surprised us. Here is likely to be one of the factors which will commend the new gaslight paper to amateurs especially, who from the wide variations in their subjects and from other causes are prone to get negatives differing considerably in their contrast.

Now that sulphide toning has become so general a method of obtaining prints of a sepia colour, one of the directions in which we felt it incumbent on ourselves to test Noctona was in its behaviour when sulphide toned. We selected a number of the prints referred to in the previous paragraph, and treated them with the usual ferricyanide and bromide bleacher, following this up with a sodium sulphide bath of a strength of five grains to the ounce. Treated in this way, the paper gave us prints of an excellent colour, with no trace of any of that unpleasant yellowness which is sometimes to be met with in sulphur-toned prints.

In short, taking the paper on its merits, we are satisfied that it is one which ought to get a strong hold upon the photographic public—one that is not only excellent in the results which can be obtained on it, but is simple and straightforward to work. It is all that a first-rate gaslight paper should be, and one of which the quality is well worthy of the high reputation which has been held for so long by its makers.

A Practical Handbook of Line Photo-engraving.

THE immense commercial importance of the subject of this book makes it rather curious that up to the present there has been no standard text book dealing completely and exclusively with line processes. However, the gap is one which Mr. William Gamble was very well qualified to fill, and he has given us in his latest book an admirable and comprehensive summary of his subject, which should be in the hands of all process workers, and of all those who from their connection with book or magazine work find the need of knowing something about line reproduction.

It is interesting to know that the first photographic method of all, the bitumen process, invented by Niepce in the second decade of the last century, was first used to reproduce a steel engraving, the plate of which is still to be seen in the museum at Chalon-sur-Saone, and that this self-same process is still used for line work, although, owing to the slight sensitiveness of the bitumen, it is now almost obsolete in this country, where strong sunlight is so seldom available. Fox Talbot also was a pioneer in photo-engraving, his intaglio process worked out in the fifties being in all essentials the photogravure process of to-day. Both relief and intaglio process for line work are dealt with by Mr. Gamble, who has also been able to include chapters on the preparation of drawings for reproduction, a most interesting sketch of methods of photographic copying without a camera, on the

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preparation and use of chalk plates, and a host of miscellaneous information on the by-paths of his subject.

The book is substantially bound in buckram, for workroom usage, and is very fully illustrated. Its price is 7s. 6d., or by post 7s. 10d., the publishers being Messrs. Percy Lund, Humphries and Co., Ltd., of 3, Amen Corner, London, E.C. Mr. Gamble is evidently familiar with the details of the many line processes, probably no one is more so, and he has succeeded in filling, and filling well, a very marked gap in English technical treatises.

Our Competitions. Awards for the Month.

The Beginners' Competition.

ENTRIES in the Beginners' Competition this month well maintain the average, both for quality and numbers. We are glad also to notice that there is a steady increase in the number of entries from abroad, Australia, New Zealand, India, Japan, and China, amongst others, being represented, some of them by quite a number of competitors. As the Advanced Workers' and the Beginners' Competitions are held each month without change in the rules, and as the rule as to coupons is relaxed in order to allow of readers all over the globe taking part, there is no reason why any photographer, no matter how distant he may be, should not enter his prints.

Awards.

First Prize (a signed copy of "The Complete Photographer").—"Finishing Touches," by Harold Mason, of Merlwood, Downs Road, Hastings.

Second Prize (a free subscription to *Photography and Focus* for twelve months).—"A Mystic Mirror," by A. Howard, 41, Scott Street, Liscard, Cheshire.

Certificates.—"Jackie," by John Hutchison, 189, Church Road, Yardley, Worcestershire, and "Robin Hood's Bay," by A. E. Scrimshaw, 53, Christchurch Road, Norwich.

Special Subject Competition.

WE are very glad to have to note that the very poor average of quality, of which we have had to complain in the Special Subject Competitions lately, has been improved upon in the present instance, and the standard has been so far raised as to allow us to make the full number of awards once more. Perhaps the fact that woodland and water subjects appeal to so very many amateur workers has something to do with it, and a good many of the competitors have gone to their negative boxes to find pictures to enter. Be that as it may, the quality is better, and we hope the improvement will be sustained.

Awards.

Silver Plaque.—"By the Lake Side," by E. F. Gilbert, 219, Shrewsbury Road, Forest Gate, Essex.

Bronze Plaque.—"Where water lilies grow," by Fred Cathery, Parkstone, Dorset.

Bronze Medal.—"By Haunted Stream," by A. E. Farrants, 50, St. Margaret's Road, Manor Park.

Certificates.—"The Silent Pool," by C. O. F. Beadows, 231, High Street, Erdington; "Evening," by W. Fisher, Matralapye, British Bechuanaland Protectorate, South Africa.

The Advanced Workers' Competition.

THE number of entries is about up to the usual standard, and amongst the work sent in are several photographs of quite outstanding merit. The criticism of those prints which were accompanied by stamped labels or wrappers is well in hand, and the last of them we hope to despatch by the end of next week

Awards.

Silver Plaque.—"Returning from the Fields," by Easten Lee, 85, Osborne Avenue, Newcastle-on-Tyne.

Bronze Plaque.—"Old Dutch," by P. F. Storrs, 115, Colmore Row, Birmingham.

Bronze Medal.—"One of the Old Brigade," by W. C. Shakespeare, 1, Bell Green, Lower Sydenham.

Certificates.—"High Noon, Well Vale," by A. Lenton Pentelow, 73, Sleaford Road, Boston, Lincolnshire; and "Little Jim," by Alf. A. Drack, The Newe, Huntly.

A Bird Book. Messrs. Witherby and Co., of 326, High Holborn, London, W.C., have just published, price 5s. nett, a well illustrated book entitled "The Home Life of a Golden Eagle," by Mr. H. B. Macpherson. The author graphically describes the difficulties which he experienced in getting the thirty-two photographs, which depict the life of the eagle from the egg until the young bird leaves the parent nest, the climbing and scrambling, the long cycle rides and walks to get to the nest, the distances traversed mounting up in all to over a thousand miles, and the measures taken to conceal both photographer and camera from the sharp eyes of the birds. The pictures were certainly worth the trouble, and are technically excellent as well as ornithologically valuable.

By the courtesy of the publishers we are able to reproduce one of the illustrations, which forms plate 8 in the volume, and shows the mother bird pushing a dead grouse towards her offspring.



From "The Home Life of a Golden Eagle." By H. B. Macpherson.



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The Week's Meetings.

MONDAY, NOVEMBER 15TH.

Bishop Auckland P.S. *Photography and Focus* Prize Slides.
South London P.S. "Light and Shade." C. Bale Rider.
Eralford P.S. "Colour and Colour Photography." C. B. Howdill.
Equitable P.S. "Flash Light." J. W. Hamforth.
Southport P.S. "Large Prints from Small Negatives." W. F. Slater.
Leeds P.S. "Modern Apparatus." R. Hesketh.
Southampton P.S. "Picturesque Holland." Rev. J. Heath.
Wallasey A.P.S. Members' Slide Night.
Bowes Park & D.P.S. "A Tale of Two Cities." H. C. Beckett.
Canterbury C.C. Prize Slides.
Lincoln A.P.S. Exhibition.
Stafford P.S. "Ozobrome." H. A. E. Hey.
Catford & Forest Hill P.S. Monthly Competition.

TUESDAY, NOVEMBER 16TH.

Sheffield P.S. "English Lakes." A. Black.
Leeds P.S. "Platinotype Process." Platinotype Co.
Hackney P.S. "Ensyna." F. Marshall.
Liberal Border City C.C. "Yorkshire Coast." J. Robinson
Dumbarton C.C. "Ensyna." F. J. Stedman.
Nelson P.S. "Large Prints from Small Negatives." W. F. Slater.
Blythe & D.C.C. "Carbon." Autotype Co.
Nelson C.C. "Enlarging." T. Bullock.
Royal. "Behind Birdland's Veil." C. G. Peake.
Otley & D.C. & A.S. "Thornton-Pickard Prize Slides." R. Hesketh.
St. Helens C.C. "Colour Photography." J. Critchley.
Halifax C.C. "Slides and Prints."
Worthing C.C. "Home Portraiture." P. R. Salmon.
Doncaster C.C. Annual Exhibition.
Manchester A.P.S. Monthly Meeting.
Tetbury C.C. "Tank Development." J. F. N. Baxter.

WEDNESDAY, NOVEMBER 17TH.

Wolverhampton P.S. "Art *versus* Nature." J. Gale.
Sale P.S. "T.-P. Prize Slides." R. Hesketh.
G.E.R. Mech. Inst. "Night Photography." A. H. Blake.
Ealing P.S. Second Print Competition.
Dennistoun A.P.S. "Ensyna." F. J. Stedman.
Darwen P.A. "Velox Paper." W. F. Slater.
Woodford P.S. "Gothic Architecture." G. Lloyd.
Coventry P.C. "Candle-light Development." W. De Welford.
Leicester & L.P.S. "Over Mountain, Lake, and Lagoon." J. Shaw.
South Suburban P.S. "West Indies." W. Phillips.
N. Middlesex P.S. "Gaslight Printing." F. Black.
Rochdale A.P.S. Annual Exhibition.
Borough Poly. P.S. 1905 Affiliation Prints.
Ilford P.S. "Irish People." C. H. Oakden.
Sheffield F.S.P.S. "Ely Cathedral." H. S. Nutt.
Croydon C.C. "Electric Lights for Dark Room." W. H. Smith.
Great Western L.S. Inter-club Night.

THURSDAY, NOVEMBER 18TH.

Polytechnic P.S. *Photography and Focus* Prize Slides.
Trent C.C. Wellington & Ward's Specialities.
Preston C.C. Exhibition of Members' Work.
Heaton & D.C.C. "On Toning Bromide Prints." J. T. Carnaby.
Liverpool A.P.A. "Large Prints from Small Negatives." W. F. Slater.

THURSDAY, NOVEMBER 18TH (*continued*).

Fernhead W.G.P.S. "Photographic Facts and Fallacies." Burroughs Wellcome.
Forest Gate C.C. Essex Past and Present. J. Avery.
Yorkshire P.U. "Ozobrome." J. Womersley.
Brighouse P.S. "Tenets of Art applied to Photography.' H. Barrat
Bolton C.C. "Thornton-Pickard Prize Slides." R. Hesketh.
Rugby P.S. "Candle-light Development." W. De Welford.
Small Heath P.S. "Enlarging." W. Rockett.
Handsworth P.S. Lantern Slide Exhibition.
Glasgow E.P.A. "Pictorial Impression and Expressions." W. C. S. Ferguson
Colville & D.P.S. Exhibition. G. E. S. Thomas.
Queen's Park A.P.S. "Use of Triple Masks." J. Beard.
Richmond C.C. "Stereo Radiographs." Dr. Rodman.
Brunswick M.C.C. "Carbon Printing." W. Firth.
Batley & D.P.S. "Ruined Abbeys of Yorks." Rev. J. Beanland.
Leek P.S. Whist Drive.
Armley & Wortley P.S. "Mounts and Mounting." L. Dickinson.
Leicester & L.P.S. "Developers and Developing Stains." A. E. Young.
Tynemouth P.S. "Rambles in the Border Counties." D. H. Stephens.
Blenheim Club. "Reminiscences of Spain."
Watford C.C. "Fakes and Dodges."
Hull P.S. "Preparing the Exhibition Print." T. L. Syms.

FRIDAY, NOVEMBER 19TH.

Bromley C.C. "Time and Tank Development." A. W. Dickins.
Oliver Goldsmith P.S. "Ensyna." F. Marshall.
Aberdeen P.S. "Ensyna." F. J. Stedman.
St. Andrews P.S. "A Medico among the Moors." Dr. J. H. Paton.
Worcester C.C. "Large Prints from Small Negatives." W. F. Slater.
Sutton P.C. Prize Slides.
Birkenhead P.A. "Oil Printing." W. G. Hughes.
Mill C.C. "Candle-light Development." W. De Welford.
Colne C.C. "Thornton-Pickard Prize Slides." R. Hesketh.
Plymouth P.S. Evening with Enlarger.
Optical Society. Annual Dinner.

SATURDAY, NOVEMBER 20TH.

Edinburgh P.S. Exhibition.

MONDAY, NOVEMBER 22ND.

South London P.S. Monthly Competition.
Bradford P.S. "Enlarged Negatives." F. Rust.
Marylebone C.C. "Light and Colour." T. J. Ward.
Preston C.C. L. & C.P.U. Slides.
Equitable P.S. Autotype Co.'s Demonstration.
Dundee & E. Scotland P.S. "Ensyna." F. J. Stedman.
Malvern C.C. "Large Prints from Small Negatives." W. F. Slater.
Fernhead W.G.P.S. Exhibition Night.
Southampton C.C. Exhibition Slides.
Scarborough D.P.S. "Bromide Paper." A. E. King.
Derby P.S. "Lantern Slide Making." A. Black.
Bowes Park & D.P.S. "Gum Bichromate." C. Wille.
Leeds C.C. "Ozobrome." W. H. Womersley.
Willesden P.P.S. "Printing Dodges." G. C. Weston.
Walsall P.S. "How it's Done." D. S. Johnson.
Bradford P.S. "Enlarged Negatives." F. Rust.
Oxford C.C. Affiliation Slides.

Societies will have their meetings announced here if their syllabus is sent to us at the beginning of the Session or from time to time.

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Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

REMITTANCES.—Postal Orders, Cheques etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C.

EDITORIAL NOTICES.

ADDRESS.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.



WRITE TO WELLINGTON & WARD, ELSTREE, HERTS, FOR DESCRIPTIVE BOOKLET DEALING WITH THIS CHARMING PROCESS.



"The time has come, the Walrus said, to talk of many things."

I WAS once persuaded by means of the pointed argument of a villainously sharp and shiny bayonet to leave my treasured hand camera to the uncertain care of a blood-thirsty sentry while I explored some fortifications. Certainly I had another camera in my pocket, but its remaining there was not due to any concession on the warrior's part. Had he known he would very likely have blown it out with a shell. It is little incidents of this kind that lead one to endorse the editor's recent remarks that it is high time some of the absurd restrictions on photography in this land of freedom were relaxed or removed. There can be no particular secret about anything that can be photographed, yet I remember a certain thirsty marine trying to frighten me about having photographed a disappearing gun. The said gun stood in a public thoroughfare, and only "disappeared" when you got on the far side of a wall, and the far side of the wall was inaccessible except to birds. The idea seems to be that anyone who took a photograph of that gun could pop over to Potsdam and get a high price for his print as an item of valuable military information, whereas, as a matter of fact, it would be a comparatively simple thing for a German to tip the old gun on a barrow, run it round the corner, and sell it for old iron.

* * *

I live on the borders of one of the largest forests in England, open everywhere to the public and dogs. Yet if I want to photograph a tuft of grass there (which I don't) I am supposed to have a written permit. For years I have cheerfully ignored the regulation, but one of these days I may find myself mauling stone at Portland with broad arrows all over my trousers.

* * *

No doubt a good many of the harassing restrictions under which photographers chafe are mere relics of the Feudal System, while others are the natural product of thick-headed Britons with a tangled hank of red tape where their brains ought to be. Yet it is only right to admit that a fair number of these afflictions have been brought upon us by the ungodly conduct of a certain number of photographers of the baser sort. The president of one of our foremost photographic societies has written to me giving examples of transgressions on the part of these persons, and I almost blush to think that I have ever used a camera. He asks me to raise my authoritative voice (silence, please!) on this subject, and as I do so I trust there will be no ill-mannered remarks about Satan reproving sin, and all that sort of thing.

* * *

It appears that one well-known amateur, whose name shall for the present be mercifully suppressed, has behaved in such a way as to exclude himself in future from at least two cathedrals. A clergyman who courteously granted me every facility for photographing in his church told me rather sadly that several successive pairs of brass candlesticks had vanished from the altar after similar visits. It was my first visit, but I could hardly have blamed him if he had asked to look in my bag on leaving. Perhaps the gentleman (laughter) referred to above had been there before me, and was also responsible for the tobacco ash knocked out in the font, and for the disappearance of the offertory box.

* * *

The news that Haddon Hall has been closed to photographers for similar reasons of ignorant vandalism leaves me almost unmoved. I have really seen all the photographs of Haddon Hall I want. But the fact remains that we must blush for the transgressions of our fellow photographers.

* * *

It may be as well, then, if I give a few simple and elementary hints to photographers on good manners. Gentlemanly consideration for the feelings of others should be a sufficient guide, but it seems necessary to enter into some details.

* * *

When photographing in a cathedral or church it is a safe rule to pretend that the place is a four-ale bar, with the exception that a clay pipe should not be smoked eastward of the nave "abaft the transept" in ecclesiastical phraseology. Muddy boots should be wiped on the cushions of the private pews. Exposure notes, etc., should be written on fly leaves torn from hymn books, and any stained glass that interferes with the lighting can be knocked out. Portable property of any kind should be taken away in case it offers temptation to other visitors.

* * *

If favoured with opportunities of photographing in private gardens the beds should be trampled down as much as possible, otherwise there will be no evidence that a photographer has been at work. Indoors a great deal of improvement can be made in the arrangement of some of the subjects by throwing unapproved ornaments of china and glass into the fireplace, and by pulling down the curtains and throwing some of the extraneous furniture through the windows. The owner will gratefully appreciate the labour devoted to these improvements, and will value any marks made by striking matches on the polished furniture.

* * *

When abroad the photographer should remember that he owns the country, and that the natives are a mere rabble of adjectival foreigners. He should lose no opportunity of signifying his contempt for them, their ways, and their belongings. At the faintest sign of protest he should thump them hard and often, and so uphold the honour and dignity of his native land. He should assert his independence by behaving like a boor, and should use his apparatus mainly as a means of causing as much inconvenience and annoyance as possible, and so make himself and his work an unmitigated nuisance.

* * *

It is little details of this kind that go to distinguish the complete gentlemanly photographer, and I hope that in future they will receive the attention they deserve. When that is the case the photographer will be received everywhere with open arms of welcome, and all vexatious restrictions on his operations will be promptly removed. It is clearly the duty of every amateur photographer to use all means in his power to suppress, by assassination if necessary, every fellow worker who shows the faintest sign of respect for other people and their property. Such a one is not fit to live.

THE WALRUS.

SUBSCRIPTIONS.

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PHOTOGRAPHY AND FOCUS.

PUBLISHED · WEEKLY ·
FOR · EVERY · CAMERA · USER.
EDITED · BY · R. CHILD · BAYLEY.

November 23rd, 1909. TUESDAY. No. 1,098. Vol. XXVIII.

Photographic Christmas Cards.

The simple postcard Christmas card : the most effective methods of masking : border printing : Christmas card mounts : cards that are original throughout : photogravures.

No application of his hobby has such a strong hold upon the amateur photographer as the use of his prints as Christmas cards, and in the production of these there is a very wide field for variations suggested by the taste and the capacity of each individual worker. Some of the methods by which photographic Christmas cards can be produced are described elsewhere in this issue. which has been timed so as to appear long enough before Chirstmas to allow of the work being done.

The simplest method of all is to make the prints on one of the commercial sensitised postcards, printed with a Christmas design on the face, which are now issued by most of the leading makers. Here there is no room for the photographer to deal with the design on the front, and if he wants to make the most of his opportunity, he must lay himself out to do all he can with the print itself. A simple, but none the less effective, treatment is by masking; and, with a little trouble, wonders can be done in this way to enhance the effectiveness of the print.

MEMORANDA *for the week.*

To send a postcard to Messrs. Griffin, Kingsway, London, W.C., for a free sample of "Noctona," their new gaslight paper, and a small exposure meter for use with it. See page 413.

Effects got by Simple Masking.

A word may be said first as to the shape of the masks. Many of the cards we see have the print of a circular or oval shape, and many of the packets of postcards contain masks of these shapes for the benefit of the user of the cards. It is very rarely indeed that a circle or an oval is at all a suitable shape for printing a negative which certainly was not taken deliberately with a view to being printed in this way. The ready-to-hand mask, therefore, may be thrown away, unless its black paper can be cut up into strips, and used in that way to build up a mask of a shape and size suitable to the particular picture in question. This last must be one of the conditions of effective masking. The part of the negative which is to show on the print should be carefully selected, so as to be the best that particular negative will give, and then four strips of black paper, cut with a sharp knife and a straight edge, so as to get a perfectly clean straight cut, should be gummed on to it so as to cover up all the rest, the strips overlapping at the corners. There is no need to have rounded corners, or dome shaped tops; nothing is simpler, nothing can be in better taste, than the mask with four perfectly straight boundary lines, meeting at right angles. If the negative is one that is smaller than the postcard on which it is to be printed, a piece of card slightly thinner than the glass of it should be cut to the size of the printing frame, a hole cut in the centre of it, to take the negative, and the black paper strips, which in such a case should project beyond the glass all round, may be stuck down to the card, so as to unite card, negative, and mask together. Then on the paper or card, pencil lines may be ruled to show exactly where the card is to be laid down to get the print in the right position on it.

Border Printing with Masks.

From the simplest form of masking, such as has just been described, there are various degrees of elaboration, by which borders of one or more tones can be printed round the picture. Such borders should never be more than plain bands of tone; anything in the shape of designs, patterns, floral or other decorations are to be avoided; since at the best they can only attract attention from the photograph itself. Some of the most effective methods of border printing were described in an article by Mr. Bensley, which appeared

in *Photography and Focus* for April 13th, 1909,* to which we must refer those who want further details on this branch of the subject.

The Use of Christmas Card Mounts.

There is not much that need be said as to the Christmas card mount, on which the amateur simply sticks his print down, or slips it in; since the photographs so treated are almost invariably straightforward prints. But it might, perhaps, be as well to add just a reminder that what we have said above as to circular and oval masks applies with equal force to prints trimmed to those—almost always unsuitable—shapes. We may add that when slip-in mounts are used, the print should always be stuck down when in the right position, so as to prevent it from shifting in the post or in handling. A little strip of thin card with a drop of gum at the end of it may be slipped in through the opening, and passed up behind the print, and then withdrawn. It will leave enough gum to do all that is required.

Some of the Finest of All.

Some amateur photographers are not satisfied with commercial Christmas postcards or Christmas mounts, and elect to do the whole work throughout for themselves; and it is from their ranks that some of the finest cards of the lot are derived. There is almost endless scope for variation of treatment here. One method is to make a print and mount it on a large mount, on which the needful lettering and design are placed. This is then copied in the camera, and the Christmas cards are printed from the negative so obtained straight away.

Or there may be more or less elaborate combination printing, the design may be built up of real holly or mistletoe, instead of being drawn, or the print may be provided with a frame, or other border, on the lines suggested by Mr. E. W. Jackson, in the article we print elsewhere this week. In fact, there are so many different ways of doing what is wanted in this direction that it is not possible to do more than throw out a few bare suggestions.

A very handsome card which we received from a reader last Christmas was a fourfold one. The outer cover was a design of ivy leaves, photographed and printed on a rough, toned bromide paper, and folded in half. Inside were a couple of leaves, on a smoother and thinner bromide paper, one having a little scroll with the sender's name and good wishes, and facing this was printed, on the same piece of paper, one of his best negatives. The whole was tied together with a dark green ribbon, which harmonised very well with the brown tone of both bromide prints, which had been obtained apparently with sulphur-toning.

The Photogravure Christmas Card.

There is one more form of Christmas card, which we must mention before leaving the subject altogether, and that is, to our thinking, the best of all. It is simply a small photogravure impression from the photographer's best negative of the year, with its title neatly written beneath in pencil. It is not obviously a Christmas card, but is sent with or without a word or two of greeting on a separate sheet of paper. Those of our readers who may like the idea may be glad to know that Messrs. Sinclair and Co., of 54, Haymarket, London, S.W., make a feature of supplying photogravures from amateurs' negatives for this purpose. It is not by any means a cheap method of doing it—in fact, it is decidedly costly; but for those who can afford it, it is far and away the best. The photogravures themselves are worth framing, and the method puts a print from one's best negative in the most dainty form of all.

R. C. B.

* This article has been reprinted by the Leto Co., of Roman Wall House, 1, Crutched Friars, London, E.C., and a copy could no doubt be obtained on application to them, by any readers who have not the copy of *Photography and Focus* by them for reference.—ED.



Our New Competition.

There should be a great many entries for the Doll Photograph Competition which we announce this week (see page 420), since the work is not only comparatively fresh to most of our readers, but is one in which there is room for a great deal of ingenuity and deftness. Mr. Weaver Baker in his article gives full directions how to secure very effective and original work with these little inanimate models, and we contemplate having to deal with a very large and varied entry. No camera, hand or stand, that any of our readers is at all likely to possess can be unsuitable for the work, so that the want of proper apparatus need deter none, while the immobility of the models allows ordinary gas or lamplight to be used, or magnesium ribbon is still better, by those whose work compels them to defer their photography until the evening. As a Christmas holiday bit of photographic work, doll photography is just the thing.

Photography and Painting.

Perhaps the most remarkable feature of Mr. Mummery's presidential address to the Royal Photographic Society was his declaration that the gum bichromate and oil processes were not photographic ones in the very strictest sense of the word. There is no doubt that in saying this Mr. Mummery's strong vein of clear commonsense has guided him aright, in face of any bias he may possess as one of the most successful users of the gum bichromate process. His address, which had for its subject "Photography and Painting," was a strong plea to photographers to let pictorial photography develop on its own lines and subject to its own recognised limitations, in accord with modern views in the other arts, but in no sense in imitation of the painters' methods or effects. The advice is sound enough, and will, we trust, be laid to heart by those who are best capable of assimilating it. At the same time, painters and others unfamiliar with the details of photographic processes are apt to regard as imitations of painting what are the perfectly

legitimate outcome of the photographic processes employed. At one time or another we have heard brush marks on a gum bichromate print, plate marks on photogravures, and even the use of a rough surfaced drawing paper referred to as examples of the way photographers "aped" painters and etchers, the critics having apparently some quite ridiculously limited idea of what constituted a photograph. As far as we can see, there is very little tendency to imitate painters in matters of technique, but a strong tendency to do so in subject, composition, and effect, and if photographers are to be on their guard against any form of imitation of the painter's work it is in this direction more especially that they should be particularly watchful.

Memoranda of the Week.

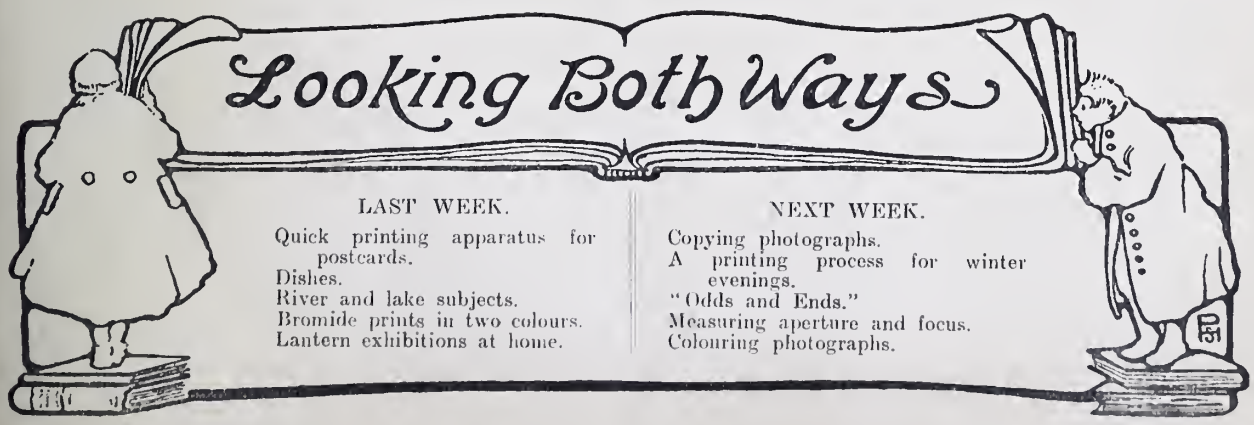
As we are constantly securing fresh readers, we hope those who know their *Photography and Focus* will pardon us if we point out for the benefit of our newer readers that the space on the first page is not in any sense an advertisement space, but is kept by us to draw attention in as prominent a manner as possible to offers which we think every reader should accept. It is only when we have seen what is offered, and satisfied ourselves that it is something well worth sending a postcard for, that an entry appears there, and for this reason it is by no means every week that anything is noted in "Memorandum." We want every reader of the paper when an entry is made there, as is done this week in the case of Messrs. Griffin's Noctona, to make a point of sending off a postcard to the firm named, and will take care that in no case shall he regret it.

Machinery by Flashlight.

One of the tasks which the amateur photographer is sometimes asked to accomplish is the photography of some machinery, often in a dark workshop or placed where, at any rate, the only natural lighting it can receive comes from some unsuitable direction. An easy way out of the difficulty in such a case is to employ flashlight for the purpose, either ignoring what daylight there may happen to be or, better still, relying upon the flash entirely and working at night. One advantage about flashlight for such a purpose is that it becomes very easy to suppress all signs of the surroundings, often very desirable when the photograph is wanted for a catalogue or similar purpose. As the further an object is from the flash the less light it receives, if none of the surrounding objects are very near the machine that is to be depicted, they will not be visible at all in the photograph, the machine simply standing out against a dark background. If it is to have a light background a sheet may be hung up behind the machine, and after the main flash has been made a smaller supplementary flash somewhere behind the sheet but at one side, so as to be well out of the field even if the sheet were not there, may be given. This will cause the sheet to print out quite white and the machine to stand out clearly against it. Reflections are apt to be troublesome, but they would be so in any case unless the machine has been specially painted to be photographed—a course that whenever possible should be adopted. A dull grey, made with an excess of turps to avoid anything like gloss, is the most suitable paint for the purpose.

The Proposed London Camera Club.

A meeting of those interested in the attempt to form a camera club for London is to be held at half-past five to-night (Tuesday) at the Gaiety Restaurant, when it will remain to be seen whether sufficient support is forthcoming to lead those who are concerned to go on with its formation. We have already pointed out that, in the opinion of those best qualified to judge, it was "men" and not "measures" which wrecked the old Camera Club, and if the new one is to succeed it will have to steer clear of the faults of its predecessor. We shall be very glad to see a strong and flourishing camera club in the centre of London, and, in cautioning the promoters of this one against the errors of those who have gone before, we are taking the best possible course to bring about the establishment of a good club. The new body must avoid the least suspicion of cliquism, unless its failure is to be swift and certain. Already it is put about that its formation is primarily to provide a house of call for the members of the Linked Ring, and it would be well, therefore, from the outset for the club, if formed, to guard most carefully against giving any basis for a suggestion which would certainly do it harm. Given a straight run under competent management, there is certainly no reason why a camera club should not be as successful as the old club was in its palmiest days.





QUERIES AND REPLIES



REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must he enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only *one* will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied hy a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

DEVELOPER (Isleworth).—Any ordinary amidol formula will do for it. There is no difference.

AFRICA (Rotherhithe).—As far as we are aware there is not any published list of photographic agents in Canada.

BELLOWS (Broadstairs).—Black sateen answers very well; it should be used with a backing of paper unless two thicknesses of the sateen are employed.

CLUBBER (Liverpool).—The formula is not one which appeared in our columns, and is apparently quite unworkable. We cannot see what you hope to get by its use.

AMATEUR (Bradford).—The information is not correct; it is no better than any other. You cannot do better than employ the formula given by the maker of the plates which you use.

H. O. JONES (Rhayader).—Whether it is suitable or not we have no means of judging; it would surely be better to get a material which has been made throughout with a constant eye to its complete purity.

MISS ROSSI (St. John's Wood).—The matter has been referred to our advertisement department, and the report is that the affair is quite genuine: but that there are delays from time to time in sending the things off.

BYKER (Newcastle-on-Tyne). — The exposure should be ascertained by means of a meter, just as it would be done here. There is no short cut, and we can give you no more definite advice that would be of any service.

YARINGA (Peebles).—The best direction from which to admit the light is the north, as this gives the least trouble from direct sunshine. The Altrincham Rubber Co., Altrincham, near Manchester, supply studios ready to fit up.

C. B. WATERLOW (Coventry).—Before writing to complain that he had not been answered, we should think that a reader would at least make sure that this was the case. A reply to your enquiry appeared in our issue for November 2nd.

A. MITCHELL (Washington).—It is possible to do so by the addition of a negative lens, which may be fitted either just before or just behind the lens. Messrs. Griffin supply a "telephoto planiscope" lens, which would answer your purpose.

D. BARRETT (Battersea) asks to be informed where the Norman doorway reproduced in our issue for November 2nd, entitled "Opening for the Morning Service," is to be found. Perhaps the competitor who took it can provide the information.

J. C. HERBERT (Wolverhampton).—We have had no experience of American leather; but a bellows made more than ten years ago of black sateen with black glazed lining as the backing is still in good working order. Ordinary glue was the adhesive used.

GAEL (Beauly).—The lens you have got, if its focus is suitable for the room in which the slides are to be shown, is an excellent one. But no lens will give what we should call a well-lit disc of that size with acetylene. It would be better to be satisfied with something smaller.

TOMKARD (Guildford).—That particular series you name is not known to us, but most of them are toned by the sulphide process, with which you are no doubt familiar. If not, full details will be found in "Toning Bromide Prints," by R. E. Blake-Smith, price 1s. nett, or post free 1s. 2d.

AN GAIDHEAL GLAS (Muswell Hill).—We are very sorry we misled you by a reference to an article which at the last moment had to be "lifted" to make room for something else. It appeared on page 401. We have never heard of any other way by which drying marks could be got rid of.

A. WEST (Barrow).—There is no doubt that the emulsion from some cause or other is fogged. We do not suspect light; but should be inclined to attribute it to some unsuitable chemical. If you dilute ordinary tincture of iodine with three times its bulk of alcohol, and add one drop of the mixture to each ounce of emulsion, give it a thorough shake, set it aside for a day and then filter and use it, you will have no further trouble we expect.

E.S.A. (Cardiff).—The copyright clearly belongs to the photographer, who gave you the prints.

G. STEWART (Paisley).—The answer is in the affirmative; more it would hardly be in our place to say. See the first page this week.

OLENDA (Holland Park Gardens).—Yes; the selection you make would do very well. It would be wise to get a lens working at not less than f/4.5.

G.D. (Rotherham).—There is no charge, as a rule, for such services; but to make quite sure it would be well to write and ask. In any case, no harm would be done.

RANGER (Enderby).—They are good value at their price; but you cannot possibly expect to get one of "the highest class" at that figure. The separate combinations require a good deal of stopping down, but can certainly be used for pictorial landscape photography.

H.C.E. (Sheffield).—The addition of the metabisulphite is made to prevent any staining from developer in the paper itself, which is conveyed into the fixing bath with the print. It is none the less advisable to give them a rinse for half a minute between developing and fixing.

F. W. SMITH (London, W.C.).—All that has to be done is to put the p.o.p. print in a good light and photograph it. If the camera will rack out far enough to enable you to focus it the size you want with the symmetrical lens by itself, it will be well to use this; but if not, then the planiscope must be added.

F. S. G. (Catford).—"Rectilinear" means that the lens renders straight lines as straight lines; that is to say, it does not distort. "Symmetrical" means that the front and back combination are alike. "Anastigmat" means that the lens has no astigmatism—a defect we cannot afford the space to explain in this column.

G.T. (Ripon).—We have asked our publishers to look into the cause of the delay. The fault, in the case of the print sent, does not seem to rest with the lens at all, but to be due to imperfect contact between paper and negative in the printing frame. The springs are not quite strong enough, or a pad of blotting paper may be inserted to put things right.

GRAIN (Birkenhead).—The trouble is caused by the position of the light, which, according to your sketch, is the worst possible position where grain is likely to be troublesome. If you turn the whole arrangement round, so that the print faces the window, with the camera between it and the window, you will find that the now visible grain has very largely vanished.

H. M. SWEARS (Neuweid).—It is most improbable that the stains are due to the backing. We should think that the developer is probably at fault. The only plan would be to try some form of clearing bath, such as alum one ounce, citric acid one dram, water one pint, giving them an hour in this followed by thorough washing. With foreign readers the rule as to the date of the coupons is relaxed; but only one question must be asked in any one letter.

H. CLARK (Watford).—You will find specific instructions how to make up any pyro soda developer with the solutions named on page 111 and 112 of our issue for February 9th. If you merely want a satisfactory pyro-soda developer of no particular formula, you will find explicit instructions in the second column on page 113 of the same issue. The B solution mentioned in your letter is not a ten per cent. but a twenty per cent. solution.

N. SMITH (Bury).—By a "rapid" lens is meant one which can be used with a larger aperture (in proportion to its focal length), thus allowing exposures to be shorter. The "speed" of a lens is governed by the proportion which its aperture, or the opening in its stop, bears to its focus. Thus if the diameter of the opening is one inch, and the focus of the lens six inches, as the focus is six times the aperture, it is said to work at f/6. If the focus had been 24 inches and the diameter of the opening 4 inches, since six times four is twenty-four, the lens is working at f/6 just the same; and when the other conditions were the same, these two lenses would both require the same exposure, that is to say, they would both be of the same rapidity.

FOCUSSITE (Walworth).—Thanks for the information, which we are very glad indeed to have.

E. M. GONNARD (Farnham).—We have asked our advertisement department to look into the matter referred to in your letter.

J.R. (Bedford).—The matter is quite beyond dispute; and if not one which [illegible] under circumstances we could have discussed in our columns. Life is too short.

NOTO (Salisbury).—No duty on either camera or plates is charged when the tourist takes them with him into France. The customs "ordeal" is of the very mildest description.

T. S. (Wigston).—The exposure has been far too short and the development too long. Try giving four times as long, and stopping development as soon as anything shows on the back of the plate.

SALON (West Kensington). — Probably most were in oil, bromoil or gum, some were gum prints superposed on platinum, some plain platinum, carbon, and bromide. We do not quite see your drift.

RAJAH (Bolton).—The standard text book on the subject of animated photography is Hopwood's "Living Pictures," published by the Gutenberg Press, price 2s. 6d., or post free from the publishers 2s. 10d.

H.T.W. (Northampton). — The apparatus is thoroughly reliable; and you have no ground for any such supposition. Hundreds of them are in use; and we have certainly never heard a word against their reliability.

READER (Oundle).—The only safe plan is to trim the mount off close to the photograph and mount the mounted print. There is no satisfactory way of unmounting a print that has been stuck down with seccotine.

WALTER (Stanground).—Our preference is for No. 3, as being the faster; but in actual quality there is very little difference between them, none at least that you would be at all likely to detect in the work you propose to do.

KLITO (Treorchy). — If you wanted to sell the outfit at any time you would get a better price for No. 1 than for No. 2; but in actual use you would find very little difference between them, if any, while No 2 is the faster.

J.W.F. (Birmingham).—The cause of the spots is the presence in the solution used of undissolved particles of the developer. Nothing can be done with them now, as anything that would remove them would attack the image as well. All you can do is to spot them out carefully on the prints.

D. H. JUNSON (Wigan).—Hunt's "Researches on Light" has changed hands at half a guinea; but our own copy was picked up at a second-hand shop for eighteenpence, and we have seen copies for sale at about that figure more than once since. It is a case of finding a buyer. The book is by no means rare.

W. SHAW (Widnes).—When the enlarging lantern with a condenser is used, the conditions are not the same, and the actual effect of stopping down upon the exposure necessary can only be ascertained by trial. With those forms of enlarging apparatus which have a diffuser this is not the case, and the rule as to stopping down is the same as in ordinary negative work.

C. F. S. (New Barnet).—The only way is to learn how to use an exposure meter, such as the Bee. The table could only be a bruised reed on which to lean We wish to give our readers the best advice we can, which in this, as in other instances, does not seem necessarily to mean the pleasantest. If you "cannot be bothered with a meter," how can you put up with a camera?

Addresses Wanted.

HARVEY SHAW (Wrexham) wants the address of a firm which will supply him waxed paper.

TRIMMING SHAPE (Leicester) may note that the Crown Manufactory, Rotherham, supplies zinc cutting shapes in ovals, circles, etc.

G.F.S. (Horley) wants the address of manufacturers of photographic cloth suitable for portable tents, also other photographic light proof cloths.



TO SECRETARIES & RECORDERS.

We are at all times glad to receive reports of Society Meetings, of a practical, useful character; but cannot give space to matters of strictly local interest, or to abstracts of lectures. A pithy remark or some hint or suggestion in sufficient detail to be of service to other photographers will be welcome. Unsuitability is the only ground for exclusion, and those who have been kind enough to send us reports which have not appeared are asked to note this for their guidance in the future.

IN THE BELFAST Y.M.C.A. Camera Club's competition for October, J. L. Anderson, D. J. Hogg, and H. Crawford tied for the first place.

THE WATFORD CAMERA CLUB has just held a very successful exhibition. The championship plaque for the best picture in the exhibition and the president's plaque for the best in the members' classes were both won by Mr. W. A. Andrews.

THE PHOTOGRAPHIC CLUB, we learn, is still in existence, and held its annual meeting at the club room at the Red Cross Hotel, Paternoster Square, on the 3rd inst., when most of the officers were re-elected.

THE ARCHITECTURAL POSTAL Photographic Club has vacancies for one or two workers, pictorial or record. Applications for membership which should be accompanied with a specimen of work, should be made to the honorary secretary, Mr. J. E. Underwood, of Bedford Square, Loughborough.

THE PHOTOGRAPHIC SECTION of the Barrow Naturalists' Field Club has a membership of sixty, and reports that the interest during the past year has been well maintained. Photographers in Barrow should get into communication with the honorary secretary, Mr. J. Frankland, whose address is 8, Greengate Street, Barrow-in-Furness.

SLOWLY PROGRESSIVE LONDON is the title of an article in our contemporary the "Photo Era," that practical journal which pointed out that it was impossible to pour four ounces of water into a one ounce pyro bottle. London may be only slowly progressive, but at least its photographic papers do not announce in November that entries for the Photographic Salon close on the previous 26th August, or that the R.P.S. opens on September 23rd, as our contemporary does on the same page as the London article we have referred to.

"PHOTOGRAPHIC CHEMICALS" is the title of the latest "Photo Miniature" to make its appearance.

WELL ILLUSTRATED BOOKLETS of the Pagor Binoculars and of the Vest Pocket Tenax have been issued by Messrs. Goerz to advertise those popular articles.

A NEW PRICE LIST of plates, films, papers, and chemicals has just been issued by the Lumière Co., of 89, Great Russell Street, London, W.C., and will be sent to any of our readers on request.

THE NORTH MIDDLESEX Photographic Society holds its twenty-first exhibition at Hanley Hall, Sparsholt Road, Crouch Hill, London, N., on December 1st to 4th. Lantern lectures will be given each evening.

THE MANUFACTURE OF LENSES. The exhibit by Messrs. Dallmeyer illustrating this, which was at Shepherd's Bush last year and this, has been given to the Science Museum, South Kensington, and is now in the Western Hall there.

THE TRADE EXHIBITION. Mr. Arthur C. Brookes writes to say that the exhibition he is organising is "not a trade exhibition," but is intended "to stimulate the interest of the general public." We used the word "trade" with its usual meaning, and the exhibition is obviously intended to be on a large scale what the "trade section" of the R.P.S. exhibition is on a small one. We did not suggest, nor did we mean to suggest, that it will not be open to, and will not attract, the general photographic public.

CHRISTMAS GREETING CARDS. Amongst the manufacturers who put sensitised Christmas greeting cards upon the market must be included the Rotary Photographic Co., Ltd., of 12, New Union Street, Moorfields, London, E.C., the Rotary Emulsions, Rotox (Gaslight), Rotograph (Bromide), Roto (P.O.P.), and Rotona (Self-toning P.O.P.), being also coated on postcards, with suitable designs on the face. Moreover, the company issues a specimen set of designs, to which we have already referred. The standard of quality of the Rotary products is a high one, and those who are going to make Christmas cards of this description will find these provide a very excellent material for the purpose.

THE SINCLAIR BROMOIL COMPETITION awards. First prize (£10) Frank H. Read, second prize (£5) F. C. Tilney, third prize (£3) R. C. Chapman. Seven prizes (each of £1) H. A. L. Way, W. C. S. Fergusson, Mrs. Ambrose Ralli, Bertram Park, R. M. Cocks, J. T. Tanner, and H. Bairstow. The competition only closed on Nov. 14th, but the prints were judged and prizes sent off on the following day, showing very commendable promptitude on the part of the organisers of the competition. A selection of the prints will be on view free of charge at Messrs. Sinclair's establishment, 54, Haymarket, London, S.W., from Nov. 24th to Dec. 8th, from 10 a.m. to 4 p.m. (Saturdays 1 p.m.)

AT THE LINCOLN EXHIBITION we hear that the landscape class was a very strong one, the portraiture and architecture being weaker in quality. The members' classes held their own very well against the open section.

A LIST OF SECOND-HAND apparatus containing a number of bargains, has just been issued by the Tella Camera Co., of 68, High Holborn, London, W.C., and will be sent free to any reader sending a postcard for it. Amongst other items, we notice some new half-plate sets consisting of a triple extension camera with tripod, book form dark slide, roller blind shutter, and R.R. lens for £2 12s. 6d. One of these would seem to be a decided bargain.

A FREE SAMPLE. Messrs. Griffins, Kingsway, London, W.C., offer to send a free sample of Noctona, together with a small exposure meter for use with it, to every reader of *Photography and Focus* who sends them a postcard for it. The postcard should be addressed as above, and should specify which grade of paper is required—Pearl Matt, Satin, or Glossy. The sample packet contains three pieces of any one grade. This is an offer not to be missed.

THE CIRKUT CAMERA is a panoramic instrument of an extremely wide range, as is shown by the prints that are now on view at the Strand establishment of Messrs. Kodak, Ltd. The Cirkut camera, which is driven by a motor, takes a continuous band of celluloid film, and can be made to include an entire circuit from its standport. The pictures in question were taken during a recent tour in Europe by Mr. O. H. Bourdon. They include many of the most interesting sites in the world, and show in a most remarkable manner the capabilities of the instrument. The exhibition is free to the public daily up to 6 p.m., and is well worth a visit.

FOR ENLARGERS. It may not be known that Messrs. Wellington and Ward, of Elstree, Herts, issue a very practical and serviceable handbook on the subject of enlarging, which they are prepared to send free by post to any of our readers sending a postcard to them for it. The book deals with enlarging both on bromide and on gaslight paper, describes the different systems of enlarging apparatus, and gives full working details for exposure and development. It is certainly a book that the enlarger should have, and we advise all those who have not yet got it to send a postcard to Messrs. Wellington forthwith.

THE HACKNEY PHOTOGRAPHIC SOCIETY held its exhibition from November 10th to 13th at the King's Hall, Hackney Baths. There was music and a lantern show every evening. The gold medal for the best picture in the open class was taken by a member, W. A. J. Hensler, and for the best in the members' classes by Walter Selfe. Photographers in the district who are not yet members of this active and flourishing society should get into communication with the honorary secretary, Mr. Walter Selfe, 24, Pembury Road, Clapton, London, N.E.

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

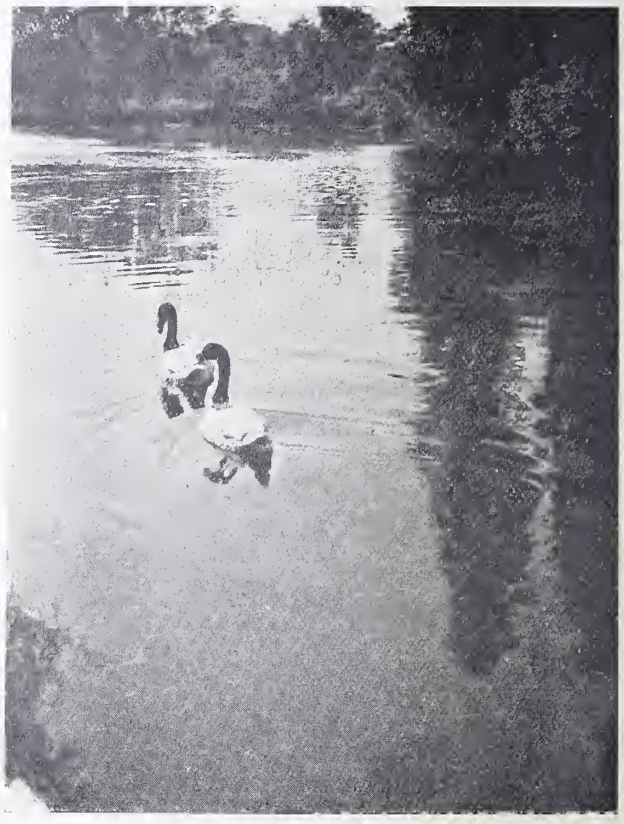
"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

THREE photographs, which occurred in a recent batch of my prints, seemed to me to illustrate curiously and quite definitely the personal element in photography. Each has the same theme, yet how differently it is treated!

Three separate photographers, and three separate cameras, in three different parts of the country, were (seemingly about the same time of the year, if not on the same date) concerning themselves with a river or lake containing swans. And here are the three separate results, which prove up to the hilt that if the camera is a machine its results are not necessarily machine-made in the sense of being all alike.



Feeding Time. *By F. Calthorpe.*



Harmonious Pair. *By K. Nozaki.*

The swan is a picturesque bird, and palpably tempting to the photographer, for several reasons. To begin with, it is large, and therefore does not look insignificant on the plate, even when not approached very closely. (The swans in "Harmonious Pair" are by no means right up against the lens, yet they are far and away the chief objects in the picture, and are no strain to recognise, as any smaller fowl would have been. Even the very remote swans in "Feeding Time" are distinguishable.)

Secondly, it is almost always white, and the photographer loves a white subject. Thirdly, it is graceful, except perhaps when promenading, and lives in an ideal habitat, water being the least niggling and most photographable background which an artist could set eyes on. And fourthly, the swan is, as a rule, tame, and not afraid of strangers.

I have run over these rather trite points, because the beginner who has successfully snapped a swan or two is prone to over-estimate the value of the exploit. He is apt, if he be very beginnerish, to imagine that swan photography

is his own discovery. But swan photography really ranges itself with sunset photography; it is a temptation which assails every camera user who has any eyes at all. The consequence is that, being very easy, it has, in practice, become very difficult. That is, it has become very difficult to produce a swan picture in the least degree off the beaten track in composition or in "feeling."

"Feeding Time" is unquestionably the most unusual of the three prints we are now considering. It represents a swan in a terrific hurry. Swimming is too slow for it; it is flapping, too.

The result is ugly. Also it is undignified. And, seeing that beauty and dignity are precisely the characteristics peculiar to this class of birds, this print is exceedingly untypical.

I have seen swans behaving like this, and I have watched with the utmost interest. But the display has been curious rather than impressive. Swans genuinely flying, high in air, are a fine sight; swans floundering half in and half out of the surface of the water are only an odd sight, just as a swan walking is a grotesque sight. This particular swan is making a spectacle of itself with rather a sordid object, if the title is to be believed: it is on the rush to get food. Were it hurtling into battle with a rival swan the effect might be excusable; but this cannot be admired. It lowers one's opinion of these ordinarily exquisite and serene creatures, and for this reason it is repellent.

This snap-shot, then, may pass muster as a curiosity, but it cannot be permitted to label itself pictorial. It is, one might guess, the production of a man who has a quick and roving eye for the peculiar rather than a quiet eye for the exquisite. He is, in a sense, profane. His photograph states facts, however frivolous or even disillusioning these facts may be. It is a mental attitude one may appreciate; the world would be poorer without the people who are blessed or cursed with this sort of vision.



The Swan. *By G. Young.*

But this type of mind is very, very rarely productive of artistry.

"Harmonious Pair" lies at the other extreme. It is—well, swanny. Its whole expanse breathes of the spirit of swans, their mode of life, their habitat, their nobility. Observe the long and deep reflection on the right, gently disturbed by ripples; observe its quietude, its lack of fuss. That reflection makes this picture what it is. Trim off the reflection, and the picture loses much of its spirit of peace.

Trim off even the bottom of the reflection, *i.e.*, trim off the lower part of the print, and it weakens enormously; it becomes clumsy. You can better afford to trim something off the top than off the bottom; indeed, I should be rather inclined to advise the removal of the tiny patch of sky, which has nothing to do with swans and swanniness, and, in its small way, is a distracting note.

At all events, observe the effect of calm produced by this print, although it represents moving objects, and live ones, too. In so far as this print achieves that effect of calm, it is a picture in a sense that "Feeding Time" can never be a picture; but in so far as it makes its effect by rather obvious and ready-made means, it is not—one may opine, without offence—a masterpiece.

It illustrates, though, how much the mental attitude of the photographer comes out in his work. The mind of the maker of "Harmonious Pair" is visibly as different from the mind of the maker of "Feeding Time" as cheese is from chalk. And quite another genus of mind is indicated by the print entitled "The Swan."



A Scotch Bullock. *By R. B. Gamble.*

"The Swan" seems to me the product of a man who is leaving the stage indicated by "Feeding Time" and entering the stage indicated by "Harmonious Pair." This print, "The Swan," is both literal and ideal. It is an exact, an intensely photographic, rendering of a certain kind of bird. In addition to this, one gathers that it is the rendering less of a naturalist than of an admirer. The way it is composed and trimmed seems to prove that the maker's idea was to bring out something more than the mere shape of the bird, a mere map of its features. He wanted to isolate attention on the beauty of those features: the curve of the neck, the lovely reflection which pursues the placid navigator wherever she glides. There is a touch of real majesty in this print.

It does not tell us anything new about the swan or its beauty; but it does

tell us that the photographer appreciated these—and if he appreciated them he is on the road to appreciate more subtle subjects.

I conclude by offering an example of the work of a man who seems to me to exemplify the curious missing, by the purely literal-minded, of the actual spirit of a subject whose beauty one would have imagined to be plain. The print is called, uncompromisingly, "A Scotch Bullock." It is that. But it is also very much more than that. It is a Scotch bullock with a mansion as a background.

That definitely-indicated mansion is like a douche of cold water. The bullock may look as shaggy as it likes, or as good-natured as it likes—in short, it may be as bullocky as it can be—but by including the mansion of its owner it is spoilt, as a picture, for ever and ever.

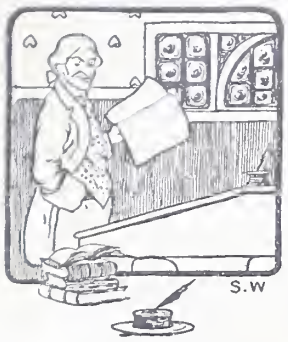
The photographer might as well have snapped it being driven through city streets, and in amongst tramcars, to the slaughter-house; indeed, there might have been a pathos and even a virtue in such a snap, which this photograph lacks.

True, these picturesque bullocks are to be found in gentlemen's parks, and the gentlemen's residences are often visible from where the bullocks are situated. But, no doubt, one could find bullocks with telephone poles as a background, bullocks with tennis lawns as a background, bullocks with washing hung out to dry as a background. These backgrounds, though, would be irrelevant; one might almost say irreverent! Here, in a word, is a fine, wildly dignified sitter; and, behold, he is photographed up against *this!*

It is crueller than "Feeding Time."

CORRESPONDENCE

The Editor is not responsible for the Opinions of his Correspondents.



THE ETCHING OF LANTERN SLIDES.

Sir,—With reference to the recent correspondence on the subject of the peculiar etching of lantern slides (*Photography and Focus* for October 19th and November 2nd), may I suggest a simple and probable explanation?

A trace of sodium hyposulphite left in the film after fixing and washing might decompose, yielding sulphur. The oxidation of the sulphur would produce (in the presence of atmospheric moisture) sulphuric acid, and if there were a slight trace of any insoluble fluoride (of silver, for example) the action of the nascent sulphuric acid would produce hydrofluoric acid, and thus produce the etching.

The fluoride might exist in the glass itself, in which case strong sulphuric acid should show an etching effect on the particular glass. Silver halogen salts sometimes contain a trace of fluorine.

Yours, etc.,
T. STRACHAN.

STAINED BROMIDES.

Sir,—May I point out to "Jovial Jenkins" that "if bromide should stain" there is no need to "print them again," as if he tones them with sodium sulphide he will find the stain disappear. At least, that has been my experience on several occasions, so that now I use the sulphide bath as a cure for stains. The same result obtains with gaslight papers.

I have tried bleaching (with ferricyanide and bromide) and re-developing, but though the stains bleached out, they returned in the developer. In the sulphide bath they do not return. This may be common knowledge, but I have never seen it mentioned in the papers.

Yours, etc.,
(MISS) EVA RICHMOND

MR. STERRY ON THE DEVELOPMENT OF GASLIGHT AND BROMIDE PRINTS.

Sir,—On page 342, second column, Mr. John Sterry states that after the development of the fifth print the developer showed signs of a failing strength. This may be due—(a) to his wetting the print before development, (b) to the use of so small a quantity of developer, (c) to the action of the formalin, or (d) to over-exposure. Prints when over-exposed often take a long time before starting to develop, and then come out flat and poor looking.

It might be desirable to state that in practice I make the developer last at least a week and often ten days, developing plates, bromide and gaslight paper day after day. Last week I find I used paper equal to 104 sheets from 12 × 10 to 24 × 20, besides a lot of plates of all sizes from lantern to 30 × 24. The bath was strengthened by some fresh solution on the Monday following its mixing, and I think you will say the enclosed developed strip is evidence that it is not necessary to make up a fresh developing bath for every five prints.

The old bath gave out during the morning of Wednesday after being mixed the Monday week previous; besides strengthening, about twenty drops of a ten per cent. bromide was added, as the tendency of an old bath is towards flatness.

Yours, etc.,
ARCHER CLARKE.

[The strip sent was certainly of an excellent colour, and showed no sign that the developer was exhausted.—ED.]

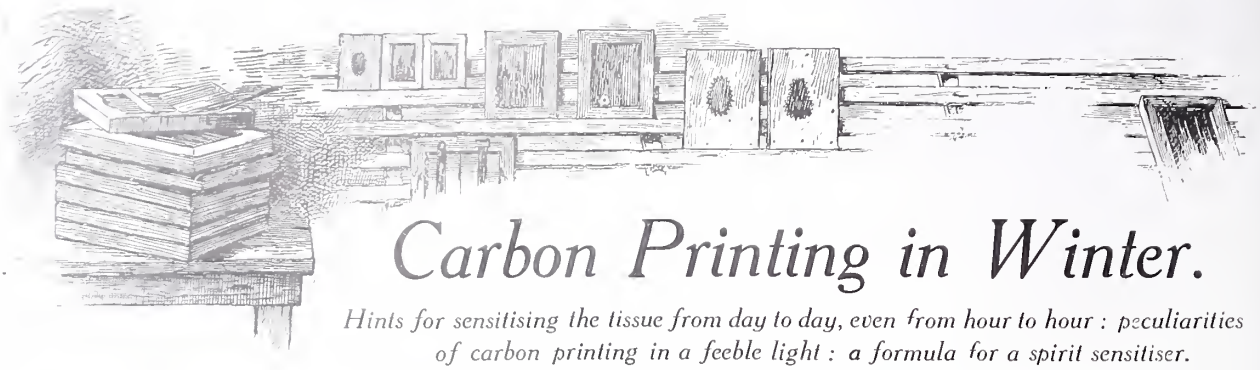


Birches. *By Henry Warner.*



A SUMMER FANTASIA. BY A. B. WEBB.

The original of this picture was No. 50 at the Exhibition of the Royal Photographic Society



Carbon Printing in Winter.

Hints for sensitising the tissue from day to day, even from hour to hour: peculiarities of carbon printing in a feeble light: a formula for a spirit sensitiser.

BY E. ASHTON-WOOD. *Special to "Photography and Focus."*

The poor keeping properties of sensitive carbon tissue are very much against its use by the amateur photographer in the winter, when not only are the opportunities of making the prints less frequent, but the conditions under which the tissue must be kept are less favourable. In spite of all that has been written on the subject of keeping sensitive tissue, every carbon printer will be inclined to agree that it is unwise to keep it any longer than is absolutely necessary, and that the best prints are those made on it when freshly sensitised. For this and for other reasons the amateur who has worked the carbon process in summer will find that if he takes it up in winter there are differences in manipulation which he must take into account if he wants to avoid trouble.

The question of keeping is settled without much difficulty by the use of a sensitising bath containing alcohol, allowing the tissue to be sensitised, dried, and ready to print in about a quarter of an hour. My own sensitiser is kept in the form of a single stock solution, made by dissolving two ounces of ammonium bichromate in ten ounces of water. This is a saturated solution, and is easiest made by dissolving the salt in hot water, and pouring off the solution from any crystals which may separate out as it gets cold. The solution is poured into a bottle, one with a cork is quite good enough, and keeps as long as required. When tissue is to be sensitised one dram of this is mixed with two drams of water, and six drams of alcohol added. The quality known as "spirits of wine" will do; but as I keep a bottle of absolute alcohol for other purposes, I generally take the little that is required from that.

The tissue could no doubt be sensitised by immersion in this solution; but it would make the sensitiser a costly one, and it is simpler to apply it with a brush, which may be a flat one of camel hair, but is better made by folding a band of swansdown over the end of a strip of glass and securing it with an elastic band. This is dipped in the solution and drawn across the tissue, which for the purpose is pinned to a board. The "brush" is dipped in the solution after every one or two strokes, and in this way the tissue is quickly and evenly covered. The board may then be turned and a set of strokes given at right angles to the first, after which the tissue is pinned up to dry. There is no harm in drying it near the fire if it is not actually made hot; my own practice is to pin it to the edge of the mantelpiece in my workroom, when, if there is a fire, it is dry in less than ten minutes. If there is daylight, the blind should be drawn down to prevent the light from being so strong as to affect the paper, but this need not be done until the sensitising is over and the tissue is beginning to get dry.



THROUGH THE SNOW. BY GEO. BROWN.

The printing in winter time will not be found to be so much slower on account of the poorness of the light, as is the case with silver printing. Carbon tissue always seems to some extent "orthochromatic," if such a phrase may be used; certainly it prints in the poor and yellow light of a London November much quicker than does p.o.p. Although dampness during printing is not so injurious as it would be in the case of platinotype, I always make the tissue quite dry in front of the fire before printing, and back it up when in the printing frame with a piece of soft sheet rubber, so as to maintain it in as dry a state as possible until the development stage is reached.

The reason for this may need a little explanation. If the tissue is at all limp during printing, or at least afterwards when it is immersed in the water previous to squeegeeing to the transfer paper, it will not be found to curl inwards properly when it is put into the water, and it will not indicate by uncurling the proper moment at which it should be withdrawn and squeegeed. The result of this has been that on more than one occasion the tissue has not adhered properly to the transfer paper, and I have spoiled the prints in consequence.

Short of being actually so brittle as to involve risk of the gelatine coating cracking as the print is handled, the drier the condition of the carbon tissue when it is put in the water the better, and if it is not decidedly stiff and dry when it comes from the printing frame it is best to put it into a calcium tube such as is used in platinum printing for an hour or so before development. This is particularly advisable if the tissue is to be squeegeed to a rough transfer paper.

With these slight differences, carbon work is as easily carried on in the poor light of winter as it is in summer. The development and finishing of the prints is an excellent winter evening occupation, not the least of its advantages in that season being that some of the baths at least are warm instead of cold.

In view of the uncertainty of the weather in winter it is better always to use the alcohol sensitiser the very day of printing, and even to sensitise the tissue from time to time, as the possibility of using it during the day may manifest itself. In this way one is able to avoid the loss of a single sheet of tissue from having sensitised one more than can be printed while it is still in condition.



Stereoscopic Transparencies with the Dichromic Screens.

By Alec. J. Jones. Special to "Photography and Focus."

IT is well known that a very fair approximation to three colour effects can be obtained by a two-colour process, and it has been found quite recently that it is possible to obtain very successful colour pictures in the form of stereoscopic transparencies, by placing filters made of properly selected complementary colours in front of the lenses when the negatives are being made, and then by viewing the transparencies with somewhat similar light filters placed behind the pictures.

These filters, which are known as Dichromic, are now on the market. In combination they cut out nearly the whole of the spectrum. Individually, they appear of an orange-red and blue-green colour respectively, and are made from dyes of the pinatype series. One of the two screens is placed over each lens of the stereoscopic camera. Panchromatic or red sensitive plates must, of course, be used; and after exposure and development two negatives will be obtained, which look very different from each other. A stereoscopic pair of transparencies is made from these two negatives, and this when placed in the stereoscope with suitable colour screens behind it gives the result in colours.

The screens used for viewing these transparencies are not quite the same in colour as those used for taking the negatives, but have been selected as the most suitable at present available. They are supplied either in sets or in pairs. The prices range from half a guinea per set for the small stereoscopic size up to a guinea per set for the standard ($6\frac{3}{4} \times 3\frac{1}{4}$) size.

An interesting feature comes up prominently in connection with these colour effects. Many people may not see the colours in their true value because the eyes are not paired for colour perceptions apart from optic inequalities; with some folks red seems to dominate one eye, and with others green seems to be dominant. As the colour effects depend upon the proper division of the total effect of vision between the two eyes, unless the eyes are truly paired for colour perception, a disturbance of the colour value will result; so that these pictures enable anyone to see if his two eyes are a pair in this respect or not. The extent to which they are different can be estimated, by screening off the light from one of the pictures of the pair, and noting the extent to which this has to be done in order to get the best effect.



Phyllis. *By W. H. Minett*

So far as observations have been made up to the present, the result goes to show that there are more people with one eye defective to red than to the blue-green.

Both the screens and transparencies are supplied by Messrs. W. Butcher and Sons, with whom the writer is connected. The subject will be found particularly interesting to stereoscopic workers, demonstrating as it does some of the peculiarities connected with photography of colours.

About Doll Photography.

By W. Weaver Baker. Special to "Photography & Focus."

A New Competition for Winter Evenings.

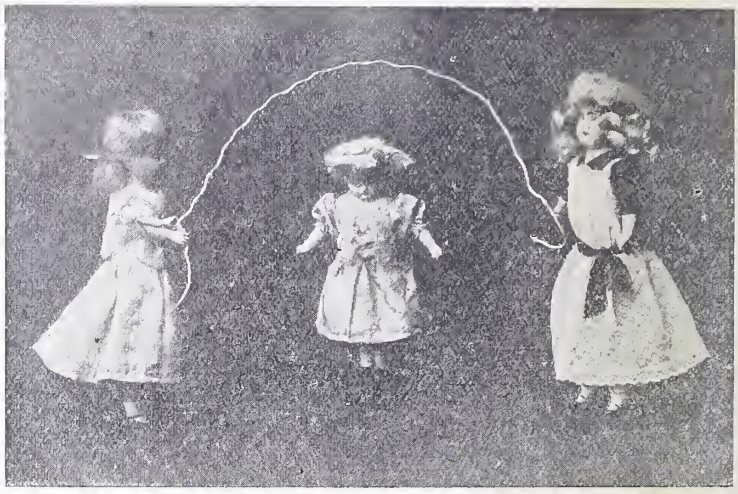


THE amateur photographer desiring a subject for an afternoon's or evening's work during the dull days when home is the best place, will be surprised to find how much amusement may be obtained by attempting by means of dolls to depict scenes in everyday life, pastimes, etc. Incidentally, also, lessons may be learnt which will prove of the greatest use in future work with the camera. If it will teach nothing else, at least it will be found an excellent exercise in patience—a virtue the lack of which has resulted in many a failure in more serious work.

Now, as to the method of procedure, the first step must be to beg, borrow, or buy some dolls. These may be ready dressed; and it will be best to choose, say, half a dozen or so, boys and girls, and, if possible, a baby doll, too. In order to secure the best results they should possess flexible bodies and limbs; in fact, good work cannot be done otherwise. Of course, those who are fortunate enough to be able to have them dressed to their own ideas are so much the better off, and the greater will be the variety of their work; but this need not hinder the amateur who can only obtain three dolls, and these all alike in costume, as I will presently show.

Having the dolls ready, the next thing is to select a suitable room in which to photograph them. Those who are limited to evening work will find that it is quite practicable to photograph their doll groups by means of magnesium ribbon, and even by ordinary gas or lamp light, as the objects being properly set up and fixed, there is no objection to the exposure being as long as half an hour, if the lamplight necessitates it. Three or four inches of magnesium ribbon can also be used as an illuminant very successfully, when the work is to be done at night.

If the photography of the dolls can be more conveniently done during the daytime, the best room is one having a window admitting light from the north. The lower half of the window in such case is covered up with brown paper (and, if the light comes from any other quarter, the top half should also be covered, but in this case with white tissue paper, in order to secure a suitably diffused illumination.) A table (the kitchen table will do very nicely if no one objects, as it is about the best size) is to be secured on which to do



Skipping. (Copyright.) *W. Weaver Baker.*



Washing Day. (Copyright.) *W. Weaver Baker.*

the grouping, and this should be placed in the room about one foot behind the window and three feet from it inwards, so as to obtain a "front side light."

For a background, one must be guided by the requirement of each "scene"; for many subjects the continuous background is perhaps the best, and unbleached calico answers admirably. This may be suspended from a rod above the table, and allowed to rest over the table top.

Now of variety there is practically no end in doll photography. The most important thing is to set to work with a set purpose in one's mind. For instance, one may consider pastimes as a starting point for work, and endeavour to arrange the dolls engaged in, say, "Skipping," as seen in one of the illustrations. One thing must be kept constantly in mind in this class of photography, and that is that the dolls must be made to show action. It is not sufficient just to fix up a doll in position and let the camera "do the rest."

One must arrange the little people, and then study their appearance very carefully from the position of the camera, and then move a foot or alter the

position of an arm or of the body until one is satisfied that the effect is realistic as far as possible. The central doll in "Skipping" was suspended by a very fine silk thread at a proper height from the "ground" to give the idea that she has just skipped; her companions were supported by passing stout hat pins through their bodies and legs and downwards into the table top, the feet being arranged to hide the pin, which, being flexible, enabled the bodies to be inclined as required.

Another class of subject is found in the "Pierrot" used in the heading to this article. It may be mentioned that the banjo was made for the occasion out of a pill box lid and wood, and the costume from an old handkerchief. This is one of a series of six photographs made with three dolls all alike in dress.

"Washing Day" suggested a subject, and the result is seen in the illustration, as is also the use made of the miniature "effects" previously mentioned. More than a dozen different domestic scenes were successfully dealt with in this series, and some of the most recent doll photographs have represented many of the various "turns" at a variety entertainment. The "Wire Walker" will give an idea of this type of subject.



The Wire Walker. (*Copyright.*) *W. Weaver Baker.*

Our New Competition for the best Doll Photographs.

Entries Close January 31, 1910.

THE article by Mr. Weaver Baker suggests an interesting form of photography which can be done indoors in winter, either by daylight or at night by artificial light. No doubt many of our readers will be trying their hands at it; and with a view to encourage them to do so we offer a *Photography* silver plaque, bronze plaque, and bronze medal for the best three sets of prints in which the subjects are a doll or dolls represented "doing something."

RULES.

(1.) Each entry must consist of a set of three prints, which may or may not be mounted. They must not exceed half-plate size (6½in. × 4¾in.), and need not all three be of the same dolls. One reader may send any number of sets, but each print entered must have one of our competition coupons for November, December, or January stuck on the back of it. The back of each print must also bear the name and address of the sender, the title of the print, and the titles of the other two prints which with it form the set.

(2.) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(3.) The publishers of *Photography and Focus* shall have the right to reproduce, without payment, any of the prints sent in, winning or otherwise.

(4.) All entries must be addressed "Doll Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on January 31st, 1910, at the very latest.



Death of Mr. Frank Bishop.

ONE by one the best known men in photography are dropping out; the veterans whose names have been before the public almost as long as there has been a photographic industry at all are passing away, and leaving behind only those whose association with it dates from the more modern era of the gelatine plate. For many years, whenever the photographic trade had to act as a whole, whenever any step was to be taken which needed the united efforts of firms which were otherwise always the keenest of competitors, it was Mr. Frank Bishop, the head of Messrs. Marion and Co., of Soho Square, Southgate, and Paris, who by general consent was asked to preside. His connection with the firm extended over half a century.

Shrewd and clear-headed, but kindly and genial, "Mr. Frank" won not only the respect, but also the good will alike of those who worked with or under him, and of his business competitors. It was he who was responsible for gaining and maintaining that reputation for the highest probity, which has made Messrs. Marion and Co. one of those firms to whom all look as representing the very best principles of British business; and when only two years ago he retired, in consequence of ill-health, from active participation in the conduct of the firm, handing over the reins to his nephew, Mr. Gerald Bishop, no commercial house in the trade stood higher than that of the old-established business in the corner of Soho Square.

Mr. Frank Bishop, whose portrait we reproduce on this page, did not live long to enjoy his retirement. He died at the age of 72 at his residence at 20, Kensington Crescent, London, W., on the morning of Friday, the 12th inst., and was buried on the 15th at Highgate.



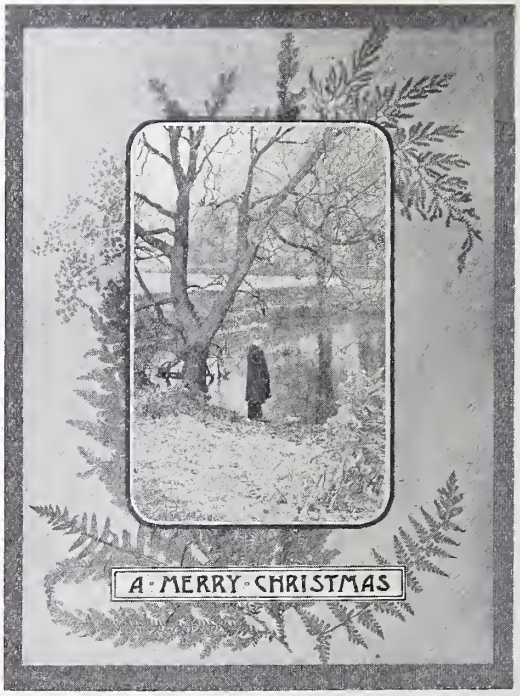
Novelties in Photographic Christmas Cards.

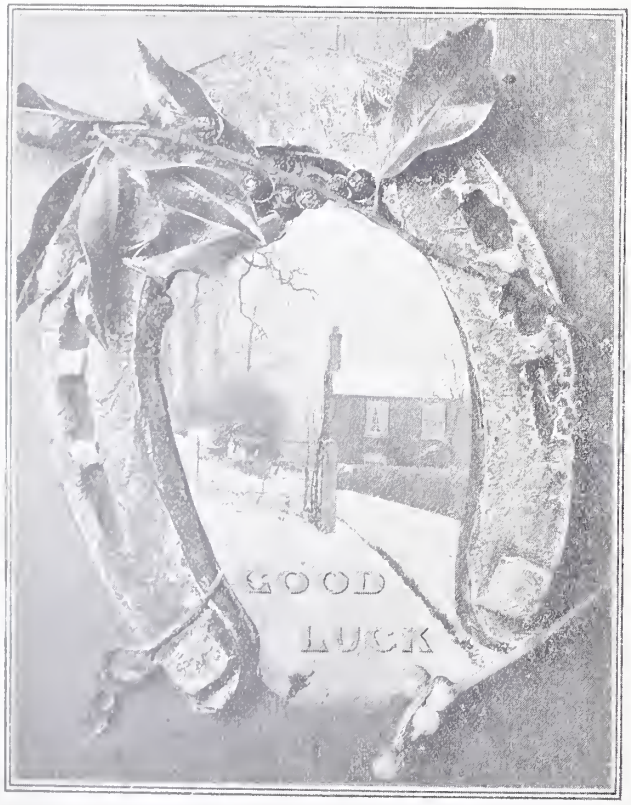
Written and Illustrated by E. W. Jackson.

Special to "Photography and Focus."

ONE of the most pleasing features of photography is its adaptability to artistic purposes. The most enthusiastic worker in time gets tired of making prints solely to place in albums, but if he can apply his photography to some practical purpose the interest is greatly sustained For instance in the making of photographic Christmas cards there is much scope for the production of something a little out of the style of the straightforward print, by combining two or more prints together in some novel form, coupled with the addition of lettering indicative of the Christmas season. The three examples subjoined may perhaps serve as useful suggestions to illustrate what is meant.

Such productions are well within the ability of any photographer who has a little inventiveness and some skill in lettering. The latter, however, is not indispensable, as suitable mottoes may be cut from any old commercial Xmas cards and pasted on to our pictures as required. The idea shown in the illustration on the next page is capable of many pleasing variations. Obviously any kind of leaves or flowers may be employed, but those of a decorative and seasonable nature will naturally be preferred The flowers or leaves are first arranged on the frame as artistically as possible, and the leaves and frame are then photographed together. Attention must be given to the lighting, and all the usual routine with regard to photographing flowers and foliage (the use of orthochromatic plates, yellow screen, etc.), if necessary, must be observed. A little difficulty is sometimes experienced in getting the frame that is being photographed quite square on the focussing screen, but if the subject and ground-glass screen are both kept parallel and note taken whether the corners are at right angles, this should easily be overcome.





The horseshoe illustration is an example of a card that would look well coloured, the green leaves and red berries of the holly making an effective contrast with the black and white tones of the winter landscape.

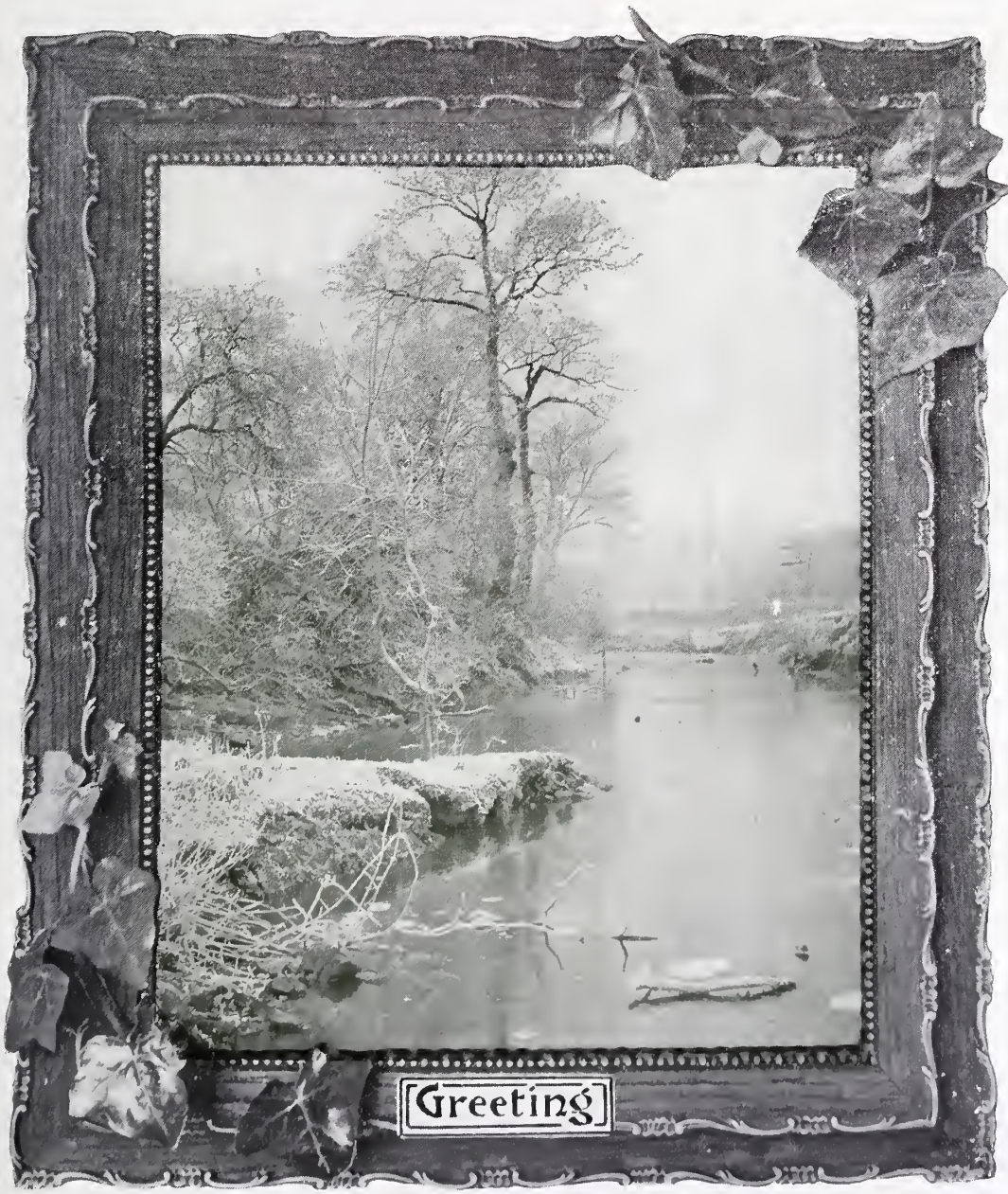
In "A Merry Christmas" pressed ferns mounted on cardboard are used as a background. It is best, we think, to make the background picture separately, and to use an ordinary direct print for the inset picture. For half-plate pictures the background will need to be about whole-plate size, and in accomplishing this an enlarging lantern will most likely be found very useful.

Snow and hoar-frost scenes are, of course, pre-eminently suitable for use as Christmas cards, and a few notes on making these will not be out of place here. Hoar-frost is generally very fleeting, and to secure such scenes we need to be constantly ready to seize the opportunity when it occurs. A good plan is to have the dark slides always filled with plates, so that we can set out as soon as it is sufficiently light after a frosty night. Directly the sun appears the enshrouding mist and fairylike effects of rime on the trees are liable to be quickly dispelled.

Snow and hoar-frost are great transformers of nature, and districts that at other times might seem very uninteresting under conditions of freshly fallen snow or effects of rime may yield very attractive pictures. Even in the city there is an unwonted charm about familiar objects, when everything is covered with the snow's white mantle. One need not always make a long tramp to secure subjects of a diverse nature. As illustrating this, it may be mentioned that the scenes used for the designs here shown were all taken within a hundred yards of one another, and yet they are fairly diversified in character.

Outdoor winter photography is not always practised under the pleasantest conditions, so that one needs to be suitably clad and shod, and to shorten the operations outdoors as much as possible, an apparatus should be selected that is simple in its manipulations and easily set up.

It is an open question whether it is worth while to use isochromatic plates for snow and hoarfrost scenes. The chief point to be observed with regard to such pictures as we are considering is the rendering of detail and gradation of tone in the snow portion of the picture. We should remember that even with the sun falling directly on unbroken snow, either from behind or one side, the snow is never perfectly white. This will be seen if we kick up a pile of it and take up a position where the light from the broken snow is reflected back to the eye. For this reason, therefore, we should be careful that in development the snow portions should not be carried so far as to print out perfectly blank paper. For this class of negative a pyro-soda developer is excellent, but it should be diluted to, say, about half strength. The printing paper used should be suitable. Many fine snow pictures are made upon the developing (or so-called "gaslight") papers now so universally used. The desired coldness of tone is easily obtained by the use of a metol or amidol developer. The mounting, too, of these delicate-toned winter pictures requires careful consideration. A cold black and white print seldom looks well on a warm brown mount, while a heavy mount will kill the beauty of a low-toned picture.





ANCIENT AND MODERN.

BY G. P. JORDAN, M.D.

The original of this picture was No. 117 at the Exhibition of the Royal Photographic Society.

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NOTHING FASTER MADE.

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PRESS PLATE AT POPULAR PRICES.

IMPERIAL "SPECIAL SENSITIVE ORTHO" (S.S.O.) 275 H. & D.
THE FASTEST ORTHO PLATE IN THE WORLD.

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IMPERIAL PAPERS

IMPERIAL P.O.P.
(White, Mauve, and Deep Mauve. Glossy Surface.)
Quickly Printed, easily toned.

IMPERIAL BROMIDE PAPER.
(Platino-Matt Surface. Rough and Smooth.)
Superb quality.
For contact printing or enlargements.

IMPERIAL GASLIGHT PAPER.
(Platino-Matt Surface. Rough and Smooth.)
The perfection of gaslight papers.

Christmas Card Methods.

BY NURSE F. C. DAVIES.

Special to "Photography & Focus."

AS Christmas draws near many photographers will be engaged in designing their own cards, for, in spite of the varied selection the manufacturers produce, one cannot always find exactly what is required. Should anyone want to have his address on his card, and yet have something a little more unusual than the ordinary private greeting card, he will find the methods described below easy to work. Pleasant effects can be obtained, either by direct photography and double printing, or, as a further variation, by "amended photography"—by this I mean photography with some amount of hand work.

The first print is a line drawing. This is quite simply made, and for this purpose a perfect negative is not essential. Neither does it matter if the bromide enlargement on which it is based is lacking in gradation: in fact, a slightly under-printed one is easier to work on. The lines that are to be reproduced are traced over in waterproof ink, any of the Indian inks work well, and when the ink is thoroughly dry, everything photographic is bleached out by means of the ferricyanide and hypo reducer, the print washed for an hour and left to dry.

This method has the advantage of enabling one to leave out details, or to add to them, according to inclination. For example, a house in a row fronting on the street can be represented as standing in its own grounds in solitary splendour, by "a party given to guile." Straight lines may be ruled, and for this purpose an ordinary pencil, on account of its small girth, makes the best ruler.

The drying must not be hastened by blotting. My first print I was in a hurry about, and nearly rubbed it off the paper. When the print is dry it is ready to have the address and greeting added. I always leave this until after the bleaching, as it is easier then to decide upon the exact position. After that there remains is to get a fresh negative from the line drawing, from which any number of prints can be made.



Fig. 1.

The second design I obtained by photographing two toy dogs which originally had been filled with sweets (and I should like to suggest that the present popular Teddy Bear would make an excellent sandwichman on which to hang a greeting). The two toys were posed, the greeting attached to the stick, and a photograph taken in the ordinary way. To improve the effect, the print was worked up in Indian ink and rephotographed.

A pleasing Christmas present can be made by colouring a photograph. The best method I have found, so far, is to immerse the print in olive oil until it is quite translucent. The time taken differs with different makes of paper. Barnet "Oyster Shell" takes about eight hours, and I prefer the results obtainable on this paper, although the method is workable with any make of P.O.P. As soon as the print is translucent it is dried under pressure between sheets of fluffless blotting paper. This must be changed once or twice so as to extract as much of the oil as possible without going so far as to deprive the print of its translucency again. The oil will be found to have given the print a kind of body or texture which it did not possess before, and will leave it rather like thin ivory in appearance.

When the print has been prepared in this way, an agreeable effect can be obtained, without calling for any great skill in painting, by applying oil colour to the back of the print. The ordinary oil paints, sold in tubes, are what are wanted for this purpose, and rather vivid colours should be selected, as otherwise they will not show sufficiently through the translucent print. At the same time it should be noted that the full strength which the colour will possess at the finish does not appear when it is first applied. The best results in this method, I find, are given by prints in rather a high key, as if there are any very heavy shadows in the print—at least, if there is any great extent of them, as they prevent the colour from showing through—they interfere with the effect. When the paint is quite dry, I place the print between two pieces of glass, place a card on the back, and bind it up as a *passe partout*. It is as well to use glass both sides, for sometimes the cardboard is impure and injures the paint. Otherwise the result is permanent.



Fig. 2.

SELTONA

A new grade has now been added to this popular printing medium, viz.:

CREAM ANTIQUE.

The surface is similar to the Ordinary Antique White, but is of a delicate cream tint which harmonises so well with the fine sepia tone obtained by mere fixing in hypo; the prints having all the appearance of

SEPIA WASH DRAWINGS.

EDWARDS
"AUTO SCREEN"
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Perfect rendering of colour values without the use of a screen.

EDWARDS ISOCHROMATIC PLATES.
EDWARDS SPECIAL RAPID PLATES.
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Proprietors of B. J. EDWARDS & CO., Ealing.

Here and There.

TEMPERATURE AND TONING.

Now that the cold season is coming on, a reminder may be given that a low temperature not only affects the time taken in toning P.O.P., but also the final tone obtained. A good plan, says Baird's "Photographic Chat," to avoid trouble on this score is to leave the solutions in a room where there is a fire, for some little time before using them. In the case of toning, we find that if the work is done in a warm room, and a little hot water is used when making up the bath, so that it is about 70° when the prints are put into it, all trouble is avoided.

AN ENLARGING NOTE.

Speaking on the subject of enlarging, more especially of enlarged negative making, to one of the most successful of photographic exhibitors, he said that he had found it a great improvement to insert a piece of ground-glass between the light and the condenser, and invariably did so. Not only did it even up the illumination to a very great extent, but it also had the effect of making any slight defects that there might be in the glass of the transparency quite invisible in the enlargement. The exact position of the ground-glass was not important, provided it came between the light and the condenser; it was less liable to break if it was near the latter.

DEFINITION IN PHOTO-MICROGRAPHY.

It is not every photo-micrographer who can afford the most perfect apochromatic objectives for his work, and it may be worth mention, therefore, that, as Mr. Bagshaw points out in the latest edition of "Elementary Photo-micrography," the use of a signal green glass between the lamp and the microscope will vastly improve the definition of any achromatic objective. The colour screen should be placed in position before the focussing of the image on the camera screen is completed, and not after. The acetylene light reduces exposure when colour screens are used, and gives better results than the oil lamp. Orthochromatic plates must be used in every case. To secure contrast in photo-micrography, the colour screen should be of a tint complementary to that of the stain employed in the preparation.

PARAFFIN WAX IN PHOTOGRAPHY.

There are several photographic uses to which paraffin wax, readily obtainable in the form of a paraffin candle, can be put. The "Revue Internationale" points out that, for travelling, light unbreakable dishes may be made of cardboard, the particular use of each clearly written on the bottom of each, and the cardboard dish then immersed in molten paraffin, and stood up to drain and dry. It is then impervious both to ordinary solutions in water and to acids. Corks should be soaked in the melted wax, and then seal the contents of the bottle into which they are put much more effectively than before. Stoppered bottles should have both the inside of the neck and the stopper slightly waxed. They will not stick then, nor will the liquid have a tendency to creep up and crystallise. The paraffin should not merely be melted, but should be heated up to the boiling point of water. To effect this it should be placed in a tin, which in turn is put into an enamelled iron saucepan containing a saturated solution of common salt, and this solution should itself be boiling. To make sure that the paraffin is hot enough, a drop or two of water may be sprinkled on its liquid surface from time to time. If the water sinks to the bottom, the wax is not hot enough; if the water evaporates directly, the heat is sufficient. The use of a bath of a solution of salt prevents risk of overheating the molten paraffin.

From a Distant Reader.



Erskine Cottage, Lorne (Victoria, Australia). *By C. J. Johnson.*

A BROMOIL VARIATION.

There is an advantage in varying the original instructions for the bromoil process to the extent of bleaching and pigmenting first, leaving the fixing until afterwards. So writes Mr. Frank E. Huson in the "American Annual of Photography." The faint image can be better seen in this way. Mr. Huson uses a bleaching bath made by mixing four drams of ozobrome stock solution, four drams of a ten per cent. solution of alum, one dram of a ten per cent. solution of citric acid, and three ounces of water. When the print has been pigmented satisfactorily, it should be fixed in a weak hypo bath, and after a rinse can be dried, when it is complete. For the original bromide enlargement he uses a metol-hydrokinone developer and a rough bromide paper, finding that with some of the smoother kinds of bromide paper that are on the market that there is a tendency to blister under pigmenting.

BURNING MAGNESIUM RIBBON.

When a considerable quantity of magnesium ribbon is to be burned, the best way of doing so, getting a good light, burning quickly, and not having a long length of ribbon alight at one end, waving about and involving danger of fire, is to cut up the total length into three or six equal pieces, and to plait these together, taking care not to have any very sharp bends in it, or the metal may break. Mr. Ernest Cord, recommending this, in the "Photographic Companion," advocates making a fold in a piece of glass paper, putting the ribbon in this, and drawing it through under a little pressure once or twice, so as to leave it surface bright. When this is done, and the ribbon plaited into a torch, not only can it easily be held wherever it happens to be wanted, but there is none of that spluttering and uneven burning so often met with, and there is also no risk of the ribbon going out in the middle of the exposure.

XMAS CARD DESIGNS.

"CELERIO"
(GASLIGHT)
AND
BROMIDE

NON STRESS

NO EXTRA CHARGE FOR DESIGNS

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N.B. The Designs may be had on either regulation postcard size or quarter-plate.

THE ONLY GLOSSY BROMIDE AND GASLIGHT PAPERS working absolutely free from STRESS MARKS. BEAUTIFUL SEPIA TONES READILY.

Special Sheet of Eight Xmas Card Designs free. Sample Packet, assorted, 7d.

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STECHFORD, BIRMINGHAM.

The Week's Meetings.

MONDAY, NOVEMBER 22ND.

South Lo[illegible]n P.S. Monthly Competition.
Bradford P.S. "Enlarged Negatives." F. Rust.
Mary[illegible]one C.C. "Light and Colour." T. J. Ward.
Preston C.C. L. & C.P.U. Slides.
Equitable P.S. Autotype Co.'s Demonstration.
Dun[illegible]ee & E Scotland P.S. "Ensyna." F. J. Stedman.
Malvern C.C. "Large Prints from Small Negatives." W. F. Slater.
Fernhead W.G.P.S. Exhibition Night.
South[illegible]mpton C.C. Exhibition Slides.
Scarborough D.P.S. "Bromide Paper." A. E. King.
Derby P.S. "Lantern Slide Making." A. Black.
Bowes Park & D.P.S. "Gum Bichromate." C. Wille.
Leeds C.C. "Ozobrome." W. H. Womersley.
Willesden P.P.S. "Printing Dodges." G. C. Weston.
Walsall P.S. "How it's Done." D. S. Johnson.
Oxford C.C. Affiliation Slides.

TUESDAY, NOVEMBER 23RD.

Preston S.S. *Photography and Focus* Prize Slides.
Leeds P.S. "Holiday in Rouen and Caudebec." J. W. Wright
Hackney P.S. Exhibition Print Criticism.
Forfar C.C. "Ensyna." F. J. Stedman.
West Malvern P.S. "Velox Paper." W. F. Slater.
Southampton C.C. Annual Exhibition.
Halifax C.C. "Dutch Life." W. W. Gaunt.
Glasgow Southern P.A. Lecturettes.
St. Helens C.C. L. & C.U. Portfolio.
Royal. "Growth of the Photographic Image." A. W. Porter, D.Sc.
Birmingham P.S. Scottish P.F. Portfolio.
Sidcup C.C. "Assistance to the Beginner." F. H. Carr.
Nelson P.S. "Night Photography." A. H. Blake.
Chiswick C.C. Members' Lantern Evening.
Manchester A.P.S. "Stereoscopic Photography." W. A. Hepburn.
Grantham P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Nelson C.C. "Sports and Pastimes." L. Ashworth.
Blyth & D.C.C. "We Three." J. Lizars.
Forest Gate C.C. "Gothic Architecture." W. Lloyd.
Bishop Auckland P.S. Triennial Exhibition.

WEDNESDAY, NOVEMBER 24TH.

Sale P.S. "Autotype Printing." W. Pilkington.
G.E.R. Mech. Inst. "Flashlight Photography." F. C. Hart.
Ardrossan C.C. "Ensyna." F. J. Stedman.
Cheltenham A.P.S. "Large Prints from Small Negatives." W. F. Slater.
Nottingham C.C. "Thornton-Pickard Prize Slides." R. Hesketh.
Coventry P.C. "Camera as Aid to Natural History Studies." W. Hancock.
Leicester & L.P.S. House Exhibition of Pictures.
South Suburban P.S. "Printing and Toning P.O.P."
South Essex C.C. "Afar in the Fatherland." W. L. F. Wastell.
Cowes C.C. Competition—Lantern Slide Making.
Borough Poly. P.S. "Chat on Fire Brigades." S. G. Gamble.
Ilford P.S. "Pictorial Composition." Rev. F. C. Lambert.
Otley & D.C. & A.S. Whist Drive.
Hampstead P.S. "Holiday Papers." R. W. Wylie.
Bristol P.C. "South Africa." Mrs. M. Keen.
Edinburgh P.S. "Bromide Enlarging." R. Forbes.
Darwen P.A. Members' Annual Exhibition.
Croydon C.C. "Colour Photography." J. H. Pledge.

WEDNESDAY, NOVEMBER 24TH (*Continued.*)

Aeton P.S. "Fern Photography." C. B. Green.
Royal S. of Arts. "Aeronautics." C. C. Turner.
Sheffield & Hallamshire P.S. "Optical Lanterns." G. H. Bagshaw.
Stockport P.S. "Toning Bromides and Lantern Slide Making." J. J. Rothwell.

THURSDAY, NOVEMBER 25TH.

Richmond C.C. *Photography and Focus* Prize Slides.
South Norwood P.S. "Ensyna." F. Marshall.
Longton & D.P.S. Prize Slides
Salem I.C.C. "Large Prints from Small Negatives." W. F. Slater.
Brighouse P.S. "Story of Fountains Abbey." T. W. Thornton.
Liverpool A.P.A. "Wells and Bath." W. King.
Handsworth P.S. Social Evening.
Glasgow Eastern P.A. "A Ramhling Tour." A. Henshelwood.
Cardiff Windsor P.S. Gaslight Competition.
Wimbledon & D.C.C. "Development." W. S. Bond.
Richmond C.C. *Photography and Focus* Prize Slides.
Rochdale A.P.L. "Tank Development." F. Greenwood.
Leek P.S. "Norway." J. W. Sutton.
Maidstone & Inst. C.C. "English and Foreign Cathedrals." F. Aryless.
Beeston P. & A.C. "Ozobrome." H. L. Hopkins.
Watford C.C. Competition.
Hull P.S. "Thornton-Pickard Prize Slides." R. Hesketh.

FRIDAY, NOVEMBER 26TH.

Wallington C.C. Annual General Meeting.
Bideford C.C. "Large Prints from Small Negatives." W. F. Slater.
Mill C.C. "Carbon." R. Stallwood.
Cowlairs C.C. "Phosphate Paper." J. Press.
Lincoln A.P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Wakefield P.S. "Amongst the Cornish Fisher Folk." W. Thomas.
Salisbury C.C. Lantern Slide Competition.
Birkenhead P.A. "Picture Postcard Printing." K. F. Bishop.

SATURDAY, NOVEMBER 27TH.

Walthamstow P.S. "A Scamper on the Continent." R. G. Rolfe.
Edinburgh P.S. "Breton Customs." J. Oliver.
Glasgow & W. of Scot. A.P.A. Members' Exhibition.

MONDAY, NOVEMBER 29TH.

S. London P.S. "Preparing Negative for Pictorial Purposes." E. W. Taylor.
Preston C.C. Ten Minute Lectures.
Equitable P.S. Beginners' Night. Apparatus.
Southampton C.C. "Ensyna." F. J. Stedman.
Exeter C.C. "Large Prints from Small Negatives." W. F. Slater.
Leeds C.C. "Art and Photography." Rev. H. W. Dick.
N. Middlesex P.S. Evening Outing.
Canterbury C.C. "Orthochromatics." A. H. Dodman.
Colne C.C. Competition.
Leek P.S. Prize Slides.
Manchester U.P.S. "Exposure and Development." Dr. A. T. Lakin.
Stafford P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Wallasey A.P.S. L. & C.P.U. Slides.
Bradford P.S. "Tramp Along S. Cornish Coast." W. Waring.
Scarborough & D.P.S. "A Sicilian Holiday." R. F. Jameson.
Bishop Auckland P.S. "Night Photography." A. H. Blake.

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PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

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Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

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INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.

PERFECT PICTURES

VIENNA

The branch of GEVAERT necessitated by the requirements of the Austrian photographer was inaugurated in 1902. In that country, as in Germany, France, Russia, and all other European countries, practically the only difference found in the printing methods of the amateur as compared with those of the English worker, is in the very general use on the Continent, of Collodion P.O.P. described by abbreviation as C.C.

GEVAERT C.C. is offered to the discerning reader as a paper for the amateur. The manipulation required varies only in the composition of the toning formulæ from that of Gelatine P.O.P., and the prints yielded on all the many white or cream-tinted grades in which it is manufactured are artistic in the extreme. A writer in a recent number of one of the Photographic Journals says of the C.C. process, "A very simple one to work and the pictures obtainable by it are not surpassed by those of any other silver process."

Send a card to the following address, and mention Gevaert C.C.

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MARCUS HEBER SMITH



"The time has come, the Walrus said, to talk of many things."

THE air is full of doleful jeremiads on the waning popularity of photographic exhibitions. All sorts of dodges, generally taking the form of bizarre awards on a lavish scale, are being adopted to inveigle exhibitors into exhibiting; but the trouble is that even when success crowns these efforts the public will not by any means be persuaded to pay to see the resulting exhibits. The said public are evidently not such fools as they look. Indeed, that would hardly be possible.

* * *

Confident wiseacres have been dogmatically pointing out the remedy for this evident falling off in attendances at photographic exhibitions. They say that the standard of work exhibited must be raised; more relentless than ever must be the spirit of rejection, until only a few examples of marvellous merit remain. All of which reveals the wiseacres as being nothing better than so many animated turnips. Their mental mechanism sorely needs cleaning, oiling, and adjusting.

* * *

The simple fact is that the standard of the photographic exhibition has been raised and raised till it is clean above the heads of the masses, the said heads not being, in the bulk, amongst the clouds. If the desire is to attract as many people as possible to these shows the level must not be raised but lowered. And it must be lowered enough to come down with a most mighty bump, too. You and I, dear reader, will gladly pay our shilling for the privilege of contemplating half a dozen gloomy prints in a lonely gallery and passe-partout mounts. We will not even attempt to duff off a bad bob at the turnstiles. But we are not as other men are. We do not belong to the vulgar herd. We are of the elect electy. But you will never persuade me that the masses are yearning eagerly for a bobsworth of high art until you can show me as long and early a queue outside an art gallery as may be seen at the doors of a tenth-rate music hall. Unless something is done, and done soon, the only attendants at a photographic show will be those who go simply to avoid wasting an exhibitor's ticket or a press pass.

* * *

Knowing that in this, as in other weighty matters, I shall be looked to for guidance, I hasten to give it. As usual my advice will not be taken, but the responsibility will rest on those who blindly and foolishly reject it. Were my suggestions adopted I am certain that the turnstiles would never be at rest, and the daily harvest of shillings would be carried away in sacks.

* * *

In the first place, then, the pictures themselves want waking up. They are too drably monotonous. They are not sufficiently dramatic and realistic. Portraits should have the faces well painted, with mechanically rolling eyes, while the garments should have real cloth and silk stuck on them, and be in suitable cases plentifully adorned with gold and spangles. The real thing in hair, too, is cheap enough to make a photographic substitute inexcusable. A windmill in a landscape should have its sails whirled by clockwork, and a ship at sea should realistically rock under the same propulsion. These effects should result from putting a penny in a slot in the frame. Sunsets should be shown as gaudy transparencies lit from the back, and interiors should have imitation coloured glass and variegated lights illuminated in the same way. Mechanical animals should adorn farmyard scenes, and clocks in towers should be real Waterburys. No snow scene should be accepted without at least twopennyworth of powdered glass on it. Fish studies should smell, and smell strong; and pictures of birds should have clockwork warblers. These hints should suffice to indicate the unlimited scope for improvement in this direction.

Then there must be side shows. Why in the world has the popular pastime of Hoop-la been excluded from photographic exhibitions? We have all seen surging crowds frantically endeavouring to throw wooden hoops over tempting articles displayed on a platform—silver cruet stands, teddy bears, packets of woodbines, and such. Fancy having three rings a penny to throw, with a possibility of hooping a first-class reflex camera. No doubt the hoops would be so made that only a good mechanic with time on his hands could fit one on the camera, but even a novice might with luck ring in a picture postcard or a sample dry plate. Personally, I would risk a pennyworth of rings on that camera even if it were placed in Trafalgar Square and I had to stand at Piccadilly Circus.

* * *

Then there is the good old shooting gallery. That would attract visitors and bring grist to the mill. Even with a long range, crooked sights, and bad cartridges, it would be worth a pop if every time you rang the bell you got an anastigmat or a piece of litmus paper. And any photographer with a trace of the sportsman about him would gladly pay a shilling a shot if the president and secretary of the society acted as running targets. Every exhibitor receiving an award also should stand up for two hours per day as an Aunt Sally for the other exhibitors at sixpence a throw.

* * *

Appropriate novelties might be introduced. For instance, lecturer-baiting. On one side of a tightly stretched lantern sheet should be the lecturer, and on the other some of his audience. The lecturer should have to make three successive bulges in the sheet with his head, while the audience watch for the bulge armed with crowbars, hired for a consideration.

* * *

These are mere suggestions of the kind of thing that I contend would make photographic exhibitions popular and attractive. But it would be necessary to inform the public of these new delights. They would have to be assured that they were not going to be fobbed off with the usual stodgily solemn show of high art. Herein the president of the society giving the show could make himself useful for once by stationing himself at the door with panpipes and drum, while the secretary, habited as a clown, could work off a few simple tricks with a top hat and a rabbit. I hope to live to see the day when Regent Street shall stare with all its eyes at a dapper little figure in the McIntosh tartan, stumping it up and down outside the New Gallery, and skirling bravely on the bagpipes. I hope to see him pause ever and anon in his march and announce with what little breath he has left, "Noo, my braw lads and lassies, oot wi' your saxpences an' gang awa' in. It's but two bawbees extra for the lucky bag and the first prize is naething mair nor less than a richt gud autochrrrome by mine ain sel'. Hoot awa', my lads!"

* * *

All of which may not be High Art, but it is thumping good business.

THE WALRUS.

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PHOTOGRAPHY AND FOCUS.

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November 30th, 1909. TUESDAY. No. 1,099. Vol. XXVIII.

Large Size Enlargements.

The different treatment required by large size bromide paper : preventing coarseness in enlargements : bolting silk : attaching the paper to the easel : trial exposures : developing : washing enlargements.

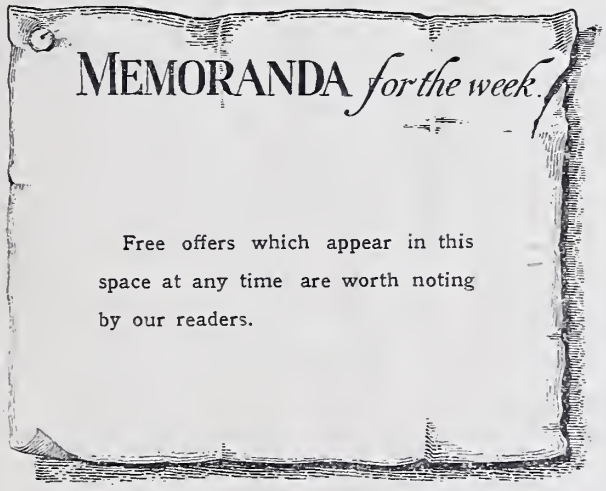
THE popularity of enlarging is so great that it would seem that at least fifty per cent. of those amateurs who use a hand camera must be thinking of using an enlarger of some kind this winter. The process of enlarging on bromide paper is a very simple one. The manipulation of the enlarger itself calls for no great amount of skill or knowledge, while the development and finishing off of the enlargements is in no way different from that of contact prints on bromide paper. So that the amateur, if he cares to do so, may learn to develop enlargements before he has ever made one at all.

There is one direction in which a few hints and suggestions may be of use in saving both trouble and expense, and that is as to the manipulation of large pieces of paper as compared with small ones. Certain liberties which may be taken with a quarter-plate piece of P.O.P. are not to be thought of in the case of a 15 by 12 sheet of bromide paper, while the mere size of the sheet may call for little differences in treatment.

How to Avoid Coarseness.

A mistake made by many who take up enlarging is the use of too smooth a paper. The very rough crayon papers are not suitable for enlargements of less than whole-plate size, but above this they are much to be preferred to the smoother grades. When a very small negative is enlarged up to a big size, no matter how fine its definition and how clean the negative may look, the enlargement on smooth paper will be coarse and granular. The finer the definition given by the enlarging lantern, the more will this defect be shown, and all sorts of little blemishes which were quite unnoticed in the small negative will be painfully visible on the enlargement. By the use of a fairly rough paper these little defects may be hidden without any fear whatever of the enlargement appearing badly defined.

Another method of concealing the coarseness inevitable with a high degree of enlargement is the well-known plan of using bolting silk. This silk is a very fine, regular fabric made for sifting flour, and can be obtained from any of the large dealers in photographic supplies. The silk should be stretched on a frame, or, better still, enclosed between two sheets of glass. It is placed in front of the bromide paper during the exposure of the enlargement, and softens down the definition to an extent which depends upon its distance from the paper. The thickness of one, or at most of two, pieces of glass gives the separation which is generally found best. If the silk is placed right down upon the bromide paper it will reduce the contrasts of the enlargement, but has no very marked effect upon the definition. As the silk is costly, it should be properly protected as soon as it is purchased, for which purpose the best plan is to bind it up between glass like a lantern slide. Its use calls for an increase of exposure of ten to thirty per cent.



Which is the Sensitive Side?

On taking the paper out of its packet its roughness may cause the photographer to be in doubt for a moment or two as to the sensitive side. Some advocate nipping one corner between the teeth: the sensitive side will stick to the teeth. But this should certainly not be necessary. All coated papers have a distinct tendency to curl, and they invariably curl

with the coated side inwards unless they are very damp indeed, and this curling we have always found quite sufficient to distinguish at a glance the front from the back.

Attaching to the Easel.

The commonest method of fastening the bromide paper to the easel is by means of drawing pins or dark room pins, but for large sizes it will be found much better to place the paper behind a sheet of glass, pressing this down on the paper either with clips or with drawing pins, whichever are more convenient. Any flat piece of ordinary picture frame glass will do if it is free from visible blemishes and has been carefully cleaned. When bolting silk is used the glass with which it is protected will serve the purpose. The yellow glass cap on the enlarging lantern allows the position of the paper to be adjusted to a nicety.

One thing about the use of large sheets of bromide paper is that we cannot afford to waste any. For this reason no piece should ever be used for an experiment without making sure that that experiment will tell us what we want to know.

Trial Exposures.

For example, every packet of paper of large size contains a small piece of the paper for a trial exposure. Now a trial exposure can be made on it, it is true, but it will only give a rough idea of the correct exposure. We hope our readers will accept our assurance that if they only take up enlarging casually and occasionally it is the soundest economy, having found the approximate exposure with the trial piece, to use a whole large sheet of paper in making a further series of trials, so that the second large sheet may be exposed with perfect confidence that its exposure will be a correct one.

Let us take a supposititious case to make this quite clear. The amateur starts to make his first enlargement, and, knowing nothing of the exposure required, he gives the preliminary trial piece of bromide paper a series of exposures, shielding the first inch of it with a piece of card after half a minute's exposure. The card is advanced another inch after the total exposure has been two minutes, another after eight, another after sixteen, and another after thirty-two minutes. Amongst these he will be pretty sure to have one which will indicate the exposure approximately. This, let us suppose, is something less than eight but a good deal more than two minutes. He estimates it at six minutes, puts up a full size sheet of paper, and gives this a series of four exposures in the same way for four, five, six, and seven minutes respectively. This should be developed and fixed, and only after this has been done and it has been taken out of the dark room and carefully studied should the correct exposure be deduced from it.

When Trials may Mislead.

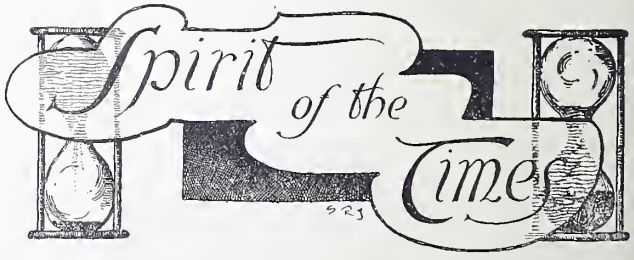
There are two things to note in connection with this. One is that unless the trial strips go right across the picture, so as to indicate a fair average of the whole subject, the information which they give may be misleading. The other is that, before exposing the trial strips at all, one should be quite sure that the enlargement is to the scale required by the finished picture, and that the lens is stopped down to the required extent. Any alteration of scale involves an alteration of the exposure, which cannot be calculated out readily and accurately, since other considerations are involved besides the mere spreading of the light over a larger area. In the same way the ordinary rule as to stops and exposures does not hold good when an enlarger with a condenser is in use. It is no longer a case of f/16 always requiring exactly four times the exposure of f/8. It may be that f/16 calls for less than double what we should give to f/8, and the only satisfactory plan of learning whether this is so or not is to make the trial exposure with the same stop as the final exposure.

Since when working on large sheets we wish to minimise waste as much as possible, it will not do to use the developer too often or to try to use a very small quantity. For a 15 by 12 enlargement a pint is none too much if the worker only takes up enlarging occasionally. The old hand will succeed with much less, but developer is cheaper than paper, and it does not do to run the risk of an enlargement being spoiled because the solution did not cover it all at once. For the same reason it is usual to allow the paper to soak in water before development until it is quite limp. The pint of developer, if it is amidol of the usual strength, will develop half a dozen 15 by 12 pieces very easily without showing any sign of greenish black shadows.

Washing Enlargements.

It is a mistake to attempt to do too many enlargements at once. If the amateur makes his trial exposures and gets one good enlargement finished off he has done an excellent evening's work. He will require two large dishes as a minimum, and in these, after fixing, the enlargement may be washed by transferring it backwards and forwards from one dish to the other, draining it well between each and changing the water. If this is done for threequarters of an hour even the roughest of paper may be assumed to be freed from hypo. There is nothing like individual treatment of this kind for an enlargement.

W. D.



To our Readers.

This being the last issue for the month, we print on page xxii. particulars of the various competitions which are at present running. Three of these—the Beginners', the Advanced Workers', and the Special Subject Competitions—close to-day (Tuesday). The competition for the best set of photographs of dolls in action was announced last week, so we do not reprint the rules on this occasion. We have another competition of a very widely interesting character, which we hope to announce in another week or two.

Another Colour Plate.

True to our promise to keep our readers fully posted on everything of practical value in connection with direct colour photography, we are able once more to be in the front with a detailed report of our own experiences with the "Dufay" process, which has just made its appearance in France. This will be found, together with a photomicrograph of the screen plate, by Mr. A. E. Smith, on page 442 this week. Viewed in the hand, the "Dufay" screen plate is extraordinarily perfect. The colour over the whole plate is as uniform as it is with the irregular grain of the Autochrome; there is no trace of variation, and what residual colour there is is a neutral tint, which augurs most favourably for the truthfulness of the colour rendering. Nor were we disappointed when we came to make our exposures. The colours throughout, as we note elsewhere, were both bright and true. If these screens can be made at a low price, and coated with an emulsion, the plate would certainly challenge the hitherto unquestioned position of the Autochrome.

All up with Photography.

Mr. Sutcliffe is in his most pessimistic mood in his latest "photography notes" in the "Yorkshire Weekly Post." The great idea before the photographer of to-day, he considers, is how to make sure that his photographs are not photographs at all. And Mr. Sutcliffe kindly helps him to do so, by suggesting that he should use his reflex camera by putting it on a low stand and drawing the image on the ground glass. His photographic training, if he has ever had any, will come in good stead, and enable him to draw everything black that is white, and white that is black, so that he can print from his ground-glass sketches when he returns home. By coating a plate with collodion of a rather powdery nature, dissolving in it some red dye, Mr. Sutcliffe remarks that he can make a film which can be scratched away with a needle point, and then printed on "Japanese imitation carbon paper," whatever that may be. "It will be soon up with poor photography," he tearfully remarks. We hope not.

Nature's Photographs.

The observant will find that light sensitive substances are far more common in nature than many suppose. It will not occur, perhaps, to everyone to regard the action of the gardener in heaping earth round his celery to keep it white as in any way analogous to that of the photographer who puts a black paper mask in front of part of his sensitised paper for a similar purpose; yet, undoubtedly, the two are closely similar. The housewife who draws down the blinds to keep the carpet from fading is taking precautions against a photographic action to which she objects, and parallel cases to these are continually being encountered. The "Bulletin of Photography," for instance, records a curious instance. A swallow-tail butterfly in a case in the museum of Hamilton College was left undisturbed for seven or eight years. At the end of that time, the museum being transferred, the butterfly was found to be all but entirely destroyed by butterfly lice, which prey on such specimens; but on what had once been plain white paper beneath it, there was an exact reproduction of the insect, even to the most minute curves and points in the outline of the wings. Something in the paper had proved light sensitive during this long exposure. The print now figures in the museum.

A STORY WITH A MORAL.

Adolphus Simpson (now "the late") would oftentimes confess
He never could appreciate the need for cleanliness.
"I never wash my dishes," I have heard him say with pride,
"Yet I don't stain my gaslight prints—I've actually tried.
You ought to see my hypo bath—it's been in use for weeks,
It's too solidified to run, although the vessel leaks.
My darkroom lamp with oil and soot is coated inches thick—
I don't exactly recollect when last I trimmed the wick."
Thus would Adolphus plume himself upon the mire and murk,
The muddle and the misery 'midst which he used to work.

* * * * * * *

So terrible a state of things of course could never last,
And that is why I'm writing of Adolphus in the past.
'Twas mercury solution he was lately mixing up,
And 'twas rather like Adolphus to employ a breakfast cup.
Of course he didn't wash it.
And I think I'll spare the rest.
Suffice it that the cup was his. . . . No flowers, by request.



Cooking Both Ways

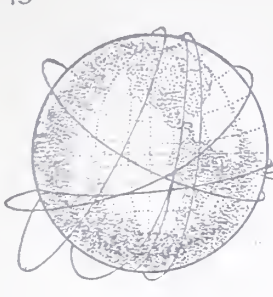


Amongst the features of last weeks issue of Photography were

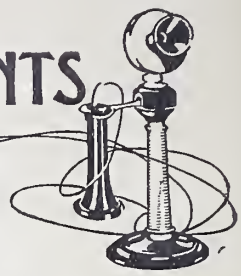
Christmas card methods.
Machinery by flashlight.
Carbon printing in winter.
Novelties in Christmas cards.
The photography of dolls.

Next week amongst other matters we hope to deal with

Photographic calendars.
Printing-out on Gravura paper.
Photography of motor cars.
More about Christmas cards.
Alpine sports and the camera.



REPLIES TO CORRESPONDENTS.



REGULATIONS.—(1) Envelopes must he marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the care of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked, only one will be selected for reply. (4) Prints may be sent in for criticism, hut a separate coupon must he sent with each print, and they must he accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

H. W. BALDRY (Lowestoft).—Card to hand. We are glad to hear yon have got what you ordered.

J.W.A. (Liverpool).—The Davenport Carrier is made by J. H. Steward, 406 and 457, Strand, London, W.C.

ALWAYS CHEERFUL (Withernsea).—We have handed your letter over to our advertisement department for attention.

NUT (Birkenhead).—You can get all materials for crystoleum painting from Mrs. Alston, 310, Regent Street, London, W.

W.S (Dumfries).—It is not made at all now, and is quite obsolete. It does not take any standard film, nor is film made for it.

R. O. HANNA (New York).—Ketureh Collins, 73, Park Street, Grosvenor Square, London, W., makes a speciality of copying old photographs.

JAY NAY.—Frosted glass would certainly be indicated as desirable; bnt apart from that there is nothing we can suggest. From your description it seems very well suited for the purpose.

F.P.S (Chatham).—It is a very common cause of trouble. To prevent it the alum solution should he hoiled briskly and allowed to go cold without agitation, before being put into the trough.

H. PICKEN (Northampton).—Of course it is possible; the information given in the article is quite correct. We can only suppose that your enlarger is stopped down to some extraordinary extent, unless you made some mistake.

REFLEX (Devonport).—The order we should put them in would be 4 and 2, 3, 1; taking into account not merely the theoretical qualities you name, but the infinitely more important one of character of workmanship and finish.

SYDNEY (Maidstone).—There is no difference between f/7.7 and f/8 that you can expect ever to detect in pratice; the one being about ten per cent. faster than the other. We give a method this week hy which the marking can he checked.

ANASTIGMAT (Maidstone).—None of the lenses are unsuitable; tut the most convenient would be the Dagor or Stigmatic for quarter-plete or five by four and the Cooke or Euryplan for half-plate. It is principally a question of focal length.

CLEMENTINA.—"The Walrus" regrets that he dare not poach on other people's preserves by criticising your prints, hnt he ventures to say that as he considers them as nice as your letter they are consequently delightful. Whatever have you been saying to him?

W. J. PHILLIPS (Glasgow).—We have taken a number of snch photographs, but so far have failed to find that it is sufficiently different from other classes of work to jnstify an article. In fact, we cannot see that there is anything to be said about it, at least at present.

H. W. BALDRY (Lowestoft).—Our advertisement department reports that the firm is doing a rousing business, hut has so many orders that it cannot deliver promptly. Please drop us a line when yon get what you have ordered, or if it is not to hand by the end of the month, advise us again

IGNORANT (Reading).—The Watkins factor for Rytol, normal strength, is approximately 12, or, say, 10 for decidedly soft, and 15 for strong negatives. It is one of those developers whose factor has to he increased with dilution; for half the normal strength 14, and for one-third the normal 17 should be taken.

"P. and F." (Dudley).—Yes; they can he reduced; hut it is not possible hy so doing to obtain as good a result as if they had not been over-printed. The ordinary hypo bath used for the paper should have enough of a solution of potassium ferricyanide added to it to make it a pale yellow colour. A formula is hardly necessary.

AMATEUR (Cumberwell).—The carbon process as used in photogravure is the only one with which we think yon have much chance of succeeding. Denison's "Photogravure," price 4s. 6d., or post free 4s. 9d. from our publishers, will give you full working details; but we imagine you would have to do some experimenting on your own to modify it to suit your particular requirements.

T.B. (Salishury).—The letter has been sent on.

UNWISSEND (Gatehouse). — You might try the Crown Photographic Manufactory, Rotherham.

T. (Northampton).—No permit is required for the use of a hand camera in the Loudon streets.

E. V. BELOHER (Darlaston).—We understand that the advertisement is quite genuine; hut that there are delays from time to time in despatching the goods.

W.E.E. (Waterloo).—There is nothing to he gained hy the exchange that we can see; certainly nothing in the direction of speed, upon which you lay so much stress.

C. BUCK (Pontypridd).—The present publishers of *Photography and Focus* did not take over the thermometer business; we believe that the thermometers are not now obtainable.

J. WRIGHT (Cardiff).—It seems a very cheap lot; hut unless you are in a position to judge of its quality you would not be wise to purchase it; especially as you point out that economy is necessary.

F.E.O. (Weston-super-Mare). — The negative arrived broken; hut the pieces showed plainly enough that it was suffering badly from under-exposure. Nothing *less* than four times as much should be given; probably even more

RINK (Gainsborough).—It would be best to use the fastest plate to which you are accustomed. The Agfa flash powder, and the Agfa exposure meter for use with it, will give you the quantities required in different circumstances.

J. KINSELLA (Dublin).—The reason is simply that the development has been carried too far, and that in all probability also, the plate has not been sufficiently exposed. Anyone passing from landscape to portrait work is almost sure to over-develop at first.

LENS (Abbey Wood).—The stops are marked on what is known as the "U.S." or "Universal System," which, as it happens, is very far from being universal. The one marked 4 is f/8, 8 is f/11, 16 is f/16, and 32 is f/22. We are very glad you have found the paper so helpful.

GRATEFUL (Barrow-in-Furness).—We are very glad to hear that *Photography and Focus* has been of service to yon; but your present request to arrange fifteen diffeent lenses in order of merit is beyond our powers. On the whole, we prefer Nos. 9, 11, 12, and 1 as well as any; but this is chiefly a matter of personal preference. No. 8 is useful, but not as the only lens.

B. MOOWAN (Shantung, N. China).—The prints are very good examplos of the process; and we can suggest no variation that would he an improvement. A good hath to give true sepia tones on plain salted paper is made of

Citric acid	..	..	..	20 grains
Common salt	..	..	..	20 grains
Water	..	..	..	30 ounces

When dissolved one grain of potassium chloro-platinite, dissolved in a little water, is added.

S. GOTTO (Liverpool).—There is nothing to he gained in point of quality by chenging the developer. In this matter all developers are alike. The metol is combined with hydrokinone, as it is found that the requisite density can be obtained more quickly in that way than hy the use of metol by itself. It is a very widely used developer, and except for those whose skin is affected by the metol, is one which is perfectly satisfactory in use. The solution will keep, in properly corked bottles, for a long while, some months at least.

RECTILINEAR (Macclesfield).—The conditions so far from requiring the back combination instead of the whole lens to he used, require just the opposite. Nothing hut a camera of the most extraordinary extension would allow such work to he done with half the lens only. It is not surprising you "could not get things sharp." Use the whole lens, rack out the camera as far as it will go, and then gradually bring it towards the subject, watching the ground glass the while. Stop when the picture appears sharp. The image is then on the largest scale which you can obtain, using that lens and camera, without some special adaptation such as magnifiers or an extension piece.

C. DAY (Chesterfield).—Postcard received and contents noted.

E.H. (Manor Park).—The view is rather a sanguine one; hut the thing itself is good enough.

W.Y.G. (Norwich).—The company was wound up long ago, and the film is no longer obtainable.

PASTY (Blackburn).—They are not made. The spotting is usually done with water colour and a fine brush.

F.R.P.S. (Bedford).—The Red Book is issued to members of the R.P.S. as well as to members of affiliated societies.

W. STAMP (Bacup).—The price includes three hookform double dark slides. We do not see that you could do better.

W.P.W.T. (Paris).—They have not yet made their appearance on the British market, and we have had no opportunity of trying them.

C.C. (Anerley).—The developer is too dilute to he satisfactory. Use one-fourth as much water and you will have no trouble.

R. SCHONHERR (Shepherd's Bush).—So fer we are not aware that any folding reflex camera in 9 by 12 Continental size has been put on the market.

WHEELWRIGHT (Stoke).—The plates you have been in the habit of using are those which will give you the best results. Nothing is to be gained by making any change.

CONSTANT READER (Bridgnorth).—Our review gave all the particulars which have come to hand; you might write to the makers, but we doubt if they could tell you any more.

J. SINCLAIR (Calderwick).—A view camera, such as is supplied by most makers now, in half-plate size at 70s., complete with shutter, lens, and tripod, is what would suit you best for work of that kind.

THE VAGABONN (Croydon).—The only likely course would he to advertise in "The Times," which is where such vacancies are generally announced. As they are very few and far between, it could only be by quite an off chance that you got a reply.

FLANGE (Oswestry).—The flanges, made to the standard sizes laid down by the R.P.S., are to he obtained from Messrs. Taylor, Taylor, and Hobson, Stoughton Street Works, Leicester. Their patent screw, which is provided on all the flanges of their make, is very convenient.

SINK (Wolverhampton).—A lead-lined sink is to he preferred to a porcelain one; as it does not lead to so many breakages of measures, hottles, dishes, etc. None of the solutions used in photography will interfere with it, although some of them may stain or discolour the surface of the metal.

PRINTER (Manchester). — Over-development, too strong a developer, or stale paper may cause it. If the print is masked, and the picture part has to be developed pretty far, it is sometimes impossible to avoid it altogether, and a weak solution of ferricyanide and hypo is used to clean them up.

SLIDES (Mirfield).—The sweating can to a great extent he prevented by taking care to warm the slides before putting them into the carrier. Special boxes are supplied for the purpose; hnt if the ordinary wooden box has its lid removed, and the slides are stood in a corner of the fender for an hour or so, the end is attained.

FOLIO (W. Kensington).—Seccotine applied to the extreme edge of the prints is as good as anything for the purpose. It is best to trim the print first, then to mount it on the innermost mount, then to trim that, then to mount those on the next, then to trim again, and so on. It is not easy to mount the papers evenly after trimming them all separately.

E. F. GILBERT (Forest Gate).—Many thanks for your letter. Of course, prints may be sent at any time, we publish the conditions, above, every week. As a general rule, we do not make blocks from very rough or very red prints; hut, if occasion arises when we have to do so, we have always done what you suggest. We are much obliged for your other suggestion, which we are putting before our publishers.



THE DONCASTER CAMERA CLUB has just held a most successful exhibition. at which Mr. Alex. Keighley acted as judge.

A PAPER BY SIR WILLIAM ABNEY on the change in hue of spectrum colours by dilution with white light was read before the Royal Society on the 25th inst.

ILFORD, LTD. The directors have declared a dividend of six per cent. for the past year, as compared with four per cent. for the previous twelve months.

THE SOUTH ESSEX CAMERA CLUB at its annual meeting re-elected Mr. T. H. B. Scott as president. The hon. secretary is Mr. T. Mitchell, of 180, Browning Road, Manor Park, London, E.

HOME PORTRAITURE. Mr. P. R. Salmon, at the Worthing Camera Club, said he preferred indoor work notwithstanding the longer exposures it entailed. The model should not be posed too near the window or source of light.

DRY MOUNTING. Messrs. Sichel and Co. send us samples of carbon tissue final supports coated with the Morgan dry mounting adhesive. At present they are not supplying it in cut sizes, but only in the roll, at 4s. per band. The print only requires heat under pressure, to make it adhere to the mount.

HINTS ON FLASHLIGHT PHOTOGRAPHY is the title of a little booklet which Messrs. Chas. Zimmermann and Co., of 9 and 10, St. Mary at Hill, London, E.C., will be pleased to forward to any of our readers who may be interested. It deals chiefly with the use of the Agfa flash powder, and is full of useful suggestions for those who are taking up this branch of work.

THE EXHIBITION PRINT. Lecturing on this topic at the Hull Photographic Society, Mr. T. Lee Syms said that very large prints were to be avoided, for most purposes 15 by 12 should be the limit, he himself worked mostly in whole-plate. The transparency might be bound up to a sheet of ground glass and then one could work upon this with ordinary household blacklead and a pad.

A MANUAL OF COLOUR PHOTOGRAPHY by Dr. Niewenglowski, entitled "Traité Pratique de Photographie des Couleurs," has just been published, price 3frs. 50c., by Garnier Frères, of 6, Rue des Saints-Pères, Paris. The greater part of the book is occupied with details of various indirect methods, direct or bleaching methods, and the Lippmann process; but some seventy pages at the end deal with screen-plate photography, chiefly, of course, with the autochrome. The book, for those who read French, gives a convenient summary of its subject to date.

AN EXHIBITION OF PRINTS by the oil and bromoil processes is now open at Messrs. Sinclair's, 54, Haymarket, London, S.W. It will remain open until December 8th.

THE GLASGOW AND WEST OF SCOTLAND Amateur Photographic Association has a membership of 311, comfortable premises with a library, enlarging facilities, etc. The honorary secretary is Mr. James W. Mackenzie, of 14a, Renfield Street, Glasgow.

A FREE LANTERN LECTURE, called "A Scamper through Holland, *viâ* Queenborough and Flushing," by Mr. W. F. Slater, will be lent free of charge to any photographic society applying for it to the Zeeland Steamship Co., Electra House, Finsbury Pavement, London, E.C.

A SPLENDID SET. Mr. Swindon, the hon. secretary of the Mill Camera Club, writes us: "The members of the Mill Camera Club wish to express their sincere thanks for and appreciation of the splendid set of prize slides *(Photography and Focus)* which they had the privilege of viewing on Friday last."

CHRISTMAS CARD MOUNTS. A very varied selection of these has been issued by Messrs. W. Butcher and Sons, Ltd., of Camera House, Farringdon Avenue, London, E.C., and the photographer who finds it difficult to make his choice is aided by the very fully illustrated catalogue, which Messrs. Butcher have sent out. The cards, and in this we include calendar mounts, etc., are all made at their own factory, and the designs include a number of an extremely pleasant and tasteful character; indeed, all that we have seen deserve those terms, although the styles vary so widely that it is difficult to believe that anyone cannot be suited from amongst them. Space this week prevents us from dealing at any length with these goods, but mention must be made of the very charming Directoire photographic stationery, sets of most attractive mounts with envelopes to match. Messrs. Butcher are to be congratulated on a novelty which ought to be most popular.

ST. ALBANS CATHEDRAL, said Mr. Harvey Piper, at the Southampton Camera Club, started as a little church, rudely constructed of wattle and mud. The abbey that followed was built largely at first of Roman bricks, quarried from the adjacent and deserted Roman city, and was fully described. The church, although restricted to its original narrow dimensions, was so added to that it became one of the longest in England. In 1553 it was sold to the townsfolk, but it proved far too large for their requirements, consequently the western part of the nave, being disused, soon fell out of repair. Three centuries of neglect brought the great Abbey church into a sad state of ruinous dilapidation from which it was rescued by three successive generations of restorers—Lewis Cottingham in the nineteenth century, Sir Gilbert Scott, and lastly Sir E. Beckett, afterwards Lord Grimthorpe, who expended £140,000 out of his own pocket in re-construction.

THE BOLTON CAMERA CLUB'S exhibition is fixed for January 26th, 27th, 28th, and 29th, entries closing January 12th. Entry forms can be obtained from the honorary secretary, Mr. Herbert Mills, Higher Bank, Smithills, Bolton.

THE FEDERATION OF THE PHOTOGRAPHIC Societies of Northumberland and Durham has arranged to hold a lantern slide competition and a print competition. Entries in both close December 14th. Particulars can be obtained from the hon. secretary, Mr. James Whittle, 30, Bridge Street, Morpeth. The competitions are open to members of federated societies.

IMPROVING NEGATIVES. At a demonstration before the New South Wales Photographic Society, Mr. H. Cazneaux showed how much can be done with poor negatives. Taking one that was very thin, says the "Australian Photographic Journal," he ran some gum round the edges of the back of it, placed upon it a piece of moist tissue paper, dabbed it down, and let it dry. Then he ran over a thin ghost of a figure with a lead pencil, shaded off the side of a tree trunk, and, holding it up to the light, showed what improvements those simple means would effect. Taking another negative he poured over the back of it some matt varnish, which caused it to assume a ground-glass appearance, and which, of course, had the effect of making the whole plate denser. Picking out his shadows he made them transparent, as far as the varnish was concerned, by painting it over with a solution of gum arabic. The same solution may be applied to the tissue paper.

WHAT IS ART?

The hen remarked to the muley cow
As she cackled her daily lay
(That is, the hen cackled): "It's funny how
I'm good for an egg a day.
I'm a fool to do it, for what do I get?
My food and my lodging. My!
But the poodle gets that—he's the household pet,
And he never laid a single egg yet—
Not even when eggs was high."

The muley cow remarked to the hen
As she masticated her cud
(That is, the cow did): "Well, what then?
You quit, and your name is mud.
I'm good for eight gallons of milk each day,
And I'm given my stable and grub;
But the parrot gets that much, anyway—
All she can gobble—and what does she pay?
Not a dribble of milk, the dub!"

But the hired man remarked to the pair:
"You get all that's coming to you.
The poodle does tricks, an' the parrot kin swear,
Which is better th'n you kin do.
You're necessary, but what's the use
O' bewailin' your daily part?
You're bourgeois—workin's your only excuse;
You can't do nothin' but just produce—
What them fellers does is Art!"

—"The Musicians' Chronicle."

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture
on the name,
Those cut-throat bandits in the path of fame."—BURNS.

IN a novel by George Moore we read, of one of the characters, that he discovered "the fallacy of the old saying that we owe everything to the earth, the mother of all. 'We owe her very little. The debt is on her side,' he muttered. 'It is we who make her so beautiful, finding in the wilderness a garden and a statue in a marble block. Man is everything.'"

This is, of course, only a new and paradoxical way of expressing a very ancient truth. Art should be, must be, more interesting than nature. Otherwise it could never compete with nature at all.

No; the word "compete" is rather ridiculous, in that connection. What I mean is that if art does not produce the illusion of making nature seem more interesting than nature really is, art has failed.

To get down to an actual example, a pictorial photograph of a landscape ought to appear more interesting than the landscape itself. It is the business of the picture-maker so to manage his rendering of the landscape that it seems more complete, better composed, and less spoiled by irrelevant detail than the actual landscape appeared when looked at by the eye. This is, as a matter of fact, an exceedingly good test of the average landscape.

Does it interest you more (as a picture) than the landscape (as a picture) would have interested you? Putting aside all questions of the geological, botanical, etc., interests which, to the eye, the landscape might have presented—thinking of it only as a "view"—would the landscape, gazed at in nature, be a better picture than the landscape as delineated in the photograph? If it would, then the photograph has, almost certainly, failed as a work of art.



The Westering Sun. *By Frank Bolton.*



Among the Bracken *By J. A. Clements.*

For nearly all artistic photography consists of picking out some piece of nature which, to the eye, would not have been remarkably pictorial, but which, in the print, immediately strikes one as quite particularly pictorial.

Look at "The Westering Sun." Observe the row of piles and the line of the beach. To the spectator those piles quite probably seemed a blot on the vista. The foreground may have been dirty and odoriferous mud. On the right there may be a hideous railway viaduct. But the photographer, by choosing a dramatic lighting, and seeing that the line of the wavelets made a beautiful curve, has shown us a picture more pleasing (at any rate, probably more pleasing) than the thing itself. By subtracting just the right morsel out of nature he has improved upon nature; by presenting that morsel in a particular way he has made even



The End of the Day.

By K. Nozaki.

that morsel better than that morsel's reality.

My point will be wholly misunderstood if you imagine that I am decrying nature. On the contrary, I hold that a study of nature is essential to all art which is to endure. But mere copying of nature is useless. Look at the picture entitled "Among the Bracken." Did you ever see anything more muddled and uninteresting? Why? Because the photographer has taken what was pleasing to the eye, and not improved upon it.

He has presented it literally. It is a mere catalogue of plants growing in a corner of a wood. Passing that corner, the observer might be delighted by colour, or by the impression of the riot of vegetation. Nature, here, is more interesting than art. That is, art has failed; for art, as I have said, must be more interesting than nature, if it is to hold its own against nature.

The reason this picture is less interesting than nature may be sought in various directions. There is no balance, no composition, no principal object, no leading lines. Nature rarely provides these items gratuitously: the photographer has to find them, and sometimes even to create them. That is the art of selection. It is also the art of omission. Mere chunks of nature such as this will never make a picture. Nature is not an artist: that is not her business. Our study of her must be directed not simply at her beauties, but at her uglinesses. We have to learn not how much of her to use, but how much of her to discard.

"Sun and Ice" is another example of the making of a picture from materials themselves, maybe, commonplace to the eye. This was, most likely, a bleak, rather crude scene; perhaps even repellent. The photographer extracted a picture, and took it. He has not been wholly successful. The trees on the right are somewhat unsupported, and there is a very bad halo round the branch in the sky. In spite of these mistakes, I think I am safe in offering this print as a specimen of art more interesting than its original in nature.

The chimney, of which we get a glimpse between the trees, proves that the neighbourhood was not one which would in ordinary parlance be labelled picturesque. But there are pictures everywhere, if they can only be discerned and properly isolated. This discernment and isolation is precisely what nature does not do. "It is we who make her so beautiful, finding in the wilderness a garden and a statue in the marble block."

Of course, nature is often beautiful; but she has to be caused to look more beautiful still, to make a picture. Sometimes this is a mere matter of regarding her from some special point of view, so that the lines and masses already provided by nature compose better on the plate than they promised at first sight to compose, when noticed casually by the passer-by. The cart in "The End of the Day" is a natural phenomenon, traversing that road. But by catching it in just that spot, by viewing the whole scene from just that aspect, the photographer has evoked a successful composition where nature had not troubled, so to speak, to try to do anything of the sort.

I like this little picture, although it is not technically all it might be. There is a needless muddiness about it which cannot excuse itself on the score of evening light. But, apart from technique, this is genuinely artistic. It will not bear trimming at any point, and that is always a severe form of scrutiny to apply.

And, as I was saying, the merit in the composition is the photographer's, not nature's. Only for an instant of time was the composition right, and the photographer proved himself an artist by seizing that instant. Moreover, only by standing in one of a thousand possible positions could he have seized that instant to advantage.

Suppose, for instance, that he had stood in such a way as to view the cart at right angles, against a background of the trees, how hopeless, how confused, would the composition then have been! But it would have been true to nature. Nature arranged it that way—and dozens of other ways, too. There was just this one way which was "artistic," and the discovery of its art was not nature's; it was the artist's.



Sun and Ice.

By John H. Burdon.

Note the sense of balance—one might almost say of "pattern"—conveyed by the position of the cart in relation to the towering tree tops. Note how the cart gains value by appearing on the brow of the hill and partly outlined by the sky. Further to the right it would have been lost against the trees; further to the left it would have been trying near the edge of the frame.

Speaking of the "frame," note also how indifferent we are as to what is beyond the edge of the frame. The margin of the frame arouses no tantalised curiosity. As far as we are concerned, everything which we want to see has been included. The picture is complete in itself.

That is where it differs from nature pure and unadulterated. There is no frame in nature. We are always wanting to see around the corner, or beyond the belt of trees. Art is satisfying; nature only disturbs, and whets the appetite for more.

Nature's menu is endless; whereas, Art picks out one perfect dish from the menu, and gives us a more delicate meal than the whole of the menu put together.

Colouring Prints and Lantern Slides.

BY P. F. VISICK. *Special to "Photography and Focus."*

MANY people seem to think that to colour their photographs would be a very tedious task; but this contribution will help to show that such is not the case.

Only those colours purchasable in liquid form will be dealt with, as those of that kind are applicable to prints on almost any paper as well as lantern slides, and no special knowledge of painting is required. The work should be done by daylight. The prints, if not already mounted, must be pinned to a board to avoid cockling and consequent running of the colours. It is also advisable to shake the bottles before use. Three brushes of different sizes will be required, and although I have been successful with those costing as little as a penny each, I find that sable brushes, from sixpence each, used for spotting photographs, and obtainable from dealers in photographic materials, cannot be beaten. As the colours are seldom used in their highly concentrated form, something will be required in which to mix them, for which purpose I use earthenware eggcups, the commonest obtainable. About half a dozen will be required, and the colours to prepare will depend largely upon the nature of the subject to be coloured.

When colouring portraits a brushful is first taken from the bottle containing "flesh" colour (using the kind for either glossy or matt surfaces, as the case may be), and to it about a thimbleful of water is added. To the mixture so prepared one must continue to add colour a brushful at a time, until by applying the liquid the face begins to look right in tint. If the colour is then not sufficiently pronounced, more should not be added, but the applications continued until the correct hue is obtained.

The size of brush to use depends upon the area to be painted. A good plan is to go over the whole of the face with the colour as first mixed, as it is then quite easy to give a second or a third application to those parts that require it. If the arms or hands form part of the photograph, the same colour should be applied to them in the first stage. After allowing each coat to remain for a few seconds, the surplus is gently picked off with the corners of a piece of blotting paper. Brown should be used for the hair, the strength being dependent upon the colour of the original; if very dark, the hair should be left in monochrome or its photographic colour. The same may be said of the dress, if it is grey or black in the original; while, if coloured, the liquid should be used as bottled, so long as it matches the original, or, failing this, should be diluted until it does so. Any colour can easily be applied, diluted, to the dress, if it is light in tone in the photograph; if it is dark in tone, it will be necessary to use the concentrated colour.



Study of a Head. *By Mrs. Lavinia Taylor.*

When colouring small portraits, there is little need to colour the eyes; and although when ordering a coloured miniature we are asked to fill in that part of the form alluding to the eyes, they are seldom coloured. For larger sizes the eyes may be touched with blue or brown, largely diluted; while if grey they may remain uncoloured. The flesh colour is not deep enough for the lips, and it is a good plan to dilute a little of the red for that purpose, and use a fine brush; but one must be very careful not to get the lips too red. It is the suggestion of colour that counts, as is evidenced by an ordinary photograph, where the image is composed of one colour and various shades of that colour.

Landscapes and other photographs are coloured in much the same way, though very seldom can the colours be used without dilution. Lantern slides require much the same treatment, but the process of colouring portrait slides is not an easy one. However, one seldom uses portrait slides at all. The slides after colouring should be given a coat of varnish.

It is in all cases far better to use too little than too much colour; otherwise one's work, if in the form of lantern slides, will resemble those of our childhood illustrating "Robinson Crusoe" or "Jack the Giant Killer"—excellent enough for their own purpose. The first exercises in colouring

should be made upon some photograph or lantern slide of no further use, as it would be unfair to expect to commence straight away with a success; but half a dozen trials should be quite sufficient, and in some cases fewer.

Coloured miniatures or midgets may be finished in pendant form; while cabinets and the like may be framed. Unless the photographs were previously mounted, they may be wetted (after being allowed to dry), and squeegeed to a piece of glass to protect them from dust and scratches. They may then be put into wooden frames, or bound up in passe-partout style. If they be made in the form of miniature portraits, they may either be fixed to the glass with gelatine, or, better still, to celluloid, which can be bought in cut sheets; but, personally, I prefer using unexposed roll or flat films. which are put into a fixing bath for ten minutes, and washed for an hour in running water, taking care not to scratch the gelatine. If the prints (while wet with water, not colour) are pressed in contact with the gelatine side of the film, taking care to exclude airbells, they will be found to adhere very firmly.

The work offers wide scope for variety. Large coloured transparencies are very effective, and I have seen a hall lamp fitted with four such transparencies, 10in. × 8in. in size, which was very successful.

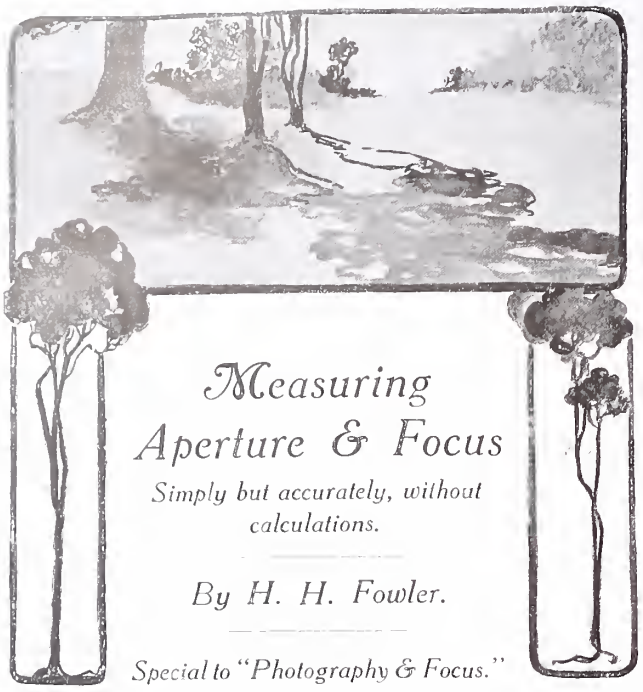
Those who make stereoscopic transparencies and prints may colour them in like manner, though greater care is needed. This particular branch offers a wide field for experiment, as peculiar effects can be got by colouring only one of the two photographs, or by colouring the two differently.



A CORNER OF THE MEADOW.

"The meadow looked so rich and rare,
The green grass freshen'd all the air,
And evry flower and evry tree
Breathed out their first born fragraney."

BY HAROLD G. GRAINGER.



Measuring Aperture & Focus

Simply but accurately, without calculations.

By H. H. Fowler.

Special to "Photography & Focus."

THE [illegible] of a lens is found by dividing its focal length by its aperture—that much every photographer knows. Where this information proves itself to be insufficient for practical purposes is that a great many do not know how to ascertain the focal length or the aperture.

A rough and ready way of finding both is to measure the distance of the ground-glass from the stop, when the lens is focussed for infinity, and to measure the diameter of the opening in the stop itself. Both these methods only give approximations. The results obtained with them are near enough for ascertaining relative exposures; but as a photographer sometimes pays a high price to get a lens a little faster than another, it is only natural that he should want to know how he is to find out whether he has actually got what he has paid for. The methods described below possess the advantage that they give strictly accurate results, subject only to the care with which they are carried out. They require no special apparatus, and involve no mathematical calculations beyond the very simplest of simple arithmetic.

First as to the measurement of focal length. On a table in front of a window commanding some fairly open view, a flat board is placed approximately horizontal, and on this board a T is drawn, with its upright line sixteen inches long and the top line eight inches, taking care that the top line is exactly halved by the upright one, and that the angles of the top with the upright are right angles. A needle is stuck exactly at that angle, and three more needles are placed at the extremities of the lines. The middle needle is thus sixteen inches from one and four inches from each of the others.

The board is then so arranged that when the eye is put against the needle at the bottom of the upright of the T, a sight can be taken through that needle and the needle at one end of the crosspiece to some distant object in the view which is well marked. Without moving the board a sight must be taken through the same needle and the one at the other end of the crosspiece to some other part of the view. It is generally possible by a little shifting about of the board to find two fairly well marked distant details which lie in the positions required. It is a good plan, then, to take a photograph of the view from the window, and mark on the print the two objects or details so found, and to keep that print at hand.

It is then the simplest thing in the world to find the exact focus of any lens that can be put on a camera for the purpose. All that has to be done is to set it up at that particular window, and focus the view on the ground-glass. The distance apart of those two objects on the ground-glass is then carefully measured. The easiest way to do this is to put a little spot of ink with a pen point on the ground-glass exactly where they come, and then to measure that off with a strip of paper. The distance so measured is exactly half the focus of the lens.

If the camera has not got a focussing screen, as is the case with many instruments of the magazine type, all that has to be done is to take a photograph of the view from the window, and measure on the negative or print so obtained the distance apart of the images of the two objects. In fact, whenever possible it is better to take a photograph and to measure off the distances on that, as this not only reduces very greatly the opportunities for error, but also gives us a permanent record of the focal length of the particular lens with which that photograph was taken.

The aperture is not, strictly speaking, the diameter of the opening in the stop, but in most cases is something larger. To find it, the camera is focussed on some distant object, and the focussing screen is then covered with a sheet of black paper or thin card with a hole in the centre about the size of a pin's head. On holding a candle against this hole, and



SCRIVELSBY LODGE

BY A. LENTON PENTELOW.

putting a piece of ground-glass over the front of the lens, a circular patch of light will be seen on the glass. The diameter of that patch will be the true aperture of the stop that is at that moment in the lens.

It is easy to get a photographic record of this also by cutting a little disc of bromide paper and putting it inside the hood of the lens, and putting on the cap. This is done in the dark room. A candle is then held for half a minute against the opening in the card, and the piece of bromide paper developed. It will have a circular black patch on it, the size of the stop.

There is no need to measure these to find the f number. We may rule a straight line on a piece of paper, and make it exactly twice as long as the distance on the photograph or ground-glass between the two objects which we found with the needles. That line then equals the focal length of the lens. Then cutting the bromide paper exactly through the middle of the black spot on it, we can mark off the diameter of the spot on that straight line, so as to see how many times the width of the spot the line is. And the number of times that diameter is contained in the line is the f number of the lens.



A MASKING HINT.

Writing in the "Australian Photographic Journal," Mr. R. V. Simpson says when first a print is taken from a negative and trimmed, it is well not to cut off the four edges in the usual manner, but to put it face upwards on a flat board, and, with the aid of a carpenter's square, to mark all round the edges where it is to be cut, and then with the aid of the square for a straight-edge, and a sharp knife, to cut carefully along the marks so as to cut out the centre and leave the outside edges intact. The mask so formed may be blackened with Indian ink or other black paint, and either fastened on to the glass side of the negative or used in the ordinary way between the negative and paper. He prefers the former method, as the edge between the white border is left, and the picture is not so hard and biting, but somewhat diffused, and altogether more pleasing than the other plan.

* * *

PRINTING FROM WET NEGATIVES.

There have been many methods suggested at different times for getting a print from a negative as quickly as possible, without waiting for it to dry, and even without finishing its washing. The following plan is suggested by Mr. Kirschbaum in "The Portrait." The plate is fixed in an acid hypo bath, rinsed and squeegeed on its face until all the surface water has been removed; the glass side is wiped dry and the plate placed face downwards upon a piece of paraffined paper, cut a little larger than the plate, the edges are stuck down on the glass side, and the plate now covered with the paper is put into the printing frame—not forgetting that the paper is on the film side. The printing is done as usual, only taking care not to be in so much of a hurry as to get so near the light as to cause the wet film to blister. The advantage of this system of making prints from wet plates is that the paper will not shift, is easy to handle, and costs very little. Of course, after the required number of prints have been made the plate is returned to the fixing bath to complete fixation. If the print is to be made from a film instead of glass plate, the paraffined paper must be long enough to cover both the front and back of the film, and only needs to be pasted along one edge. Papers can be cut and kept on hand, as they take up very little room. A plate of the size in use is placed on the paper, which is then cut so as to leave about a quarter of an inch margin all round, the corners or even the whole of the plate is marked, and then enough is cut from the corners so as not to fold or crease when used. Care must be taken not to take too much from the corners or the wet film will be exposed to the printing paper, which in this method is used dry, and so in such a case would be liable to stick and cause trouble.

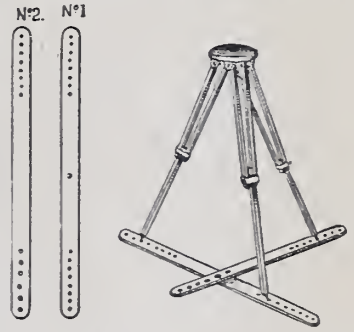
WORK ON THE NEGATIVE.

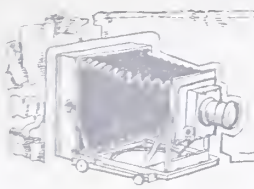
When a negative has been backed up by a sheet of tissue paper, not only can pencil or stump be used on it, on those parts which are to print lighter, but it is a simple matter to make other parts print darker by making the paper more transparent. Nothing is better for this purpose, says Mr. King-Dredge in the "Photo Globe," than to apply a solution of white wax in benzene, with a small brush, to the paper in those parts. The wax at once makes the paper more transparent.

* * *

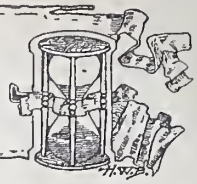
AN INEXPENSIVE TRIPOD HOLDER.

A holder that will prevent the tripod from slipping on a smooth floor, and prevent the points from doing damage to the polished surface or puncturing an expensive rug or carpet, can be made at a cost of two or three pence and a few minutes' time in the following manner. Two ordinary plaster laths are planed down to a thickness of half an inch for the sake of lightness, and cut to a length of 40in., the ends being rounded off to improve their appearance. In the centre of No. 1, as shown in the illustration, a ¼in. hole is drilled, and eight small holes 1in. apart at each end. In one end of piece No. 2, the same series of eight small holes are made, and in the other end six ¼in. holes 3in. apart. A ¼in. flat-headed carriage bolt about an inch long completes the equipment. The two pieces are bolted together, not too tightly, and the points of the tripod legs are inserted in their respective small holes. So set up, there is absolutely no danger of one of the legs slipping out of position. By moving the position of the bolt from one to another of the larger holes in the No. 2 strip, almost any desired inclination of the camera can be secured. The same sort of simple apparatus, built slightly stronger, and with a small castor under each of the three series of small holes, makes an excellent tripod clamp for use when the camera has to be shifted about, as in portraiture and the like. One so made can be used, castor side downward, to make the camera easily movable over an ordinary floor, or smooth side downward to make the camera firmly stationary upon the smoothest of highly-polished floors. ("Camera Craft.")





The Proposed Camera Club for London.



LORD CRAWFORD, at the Gaiety Restaurant, on Tuesday night last, expounded the desirability of the formation of a new Camera Club for London to a not over-enthusiastic audience. Matters, however, became more interesting when Dr. Evershed, in seconding the proposition of his Lordship, said that he particularly wished to point out that the club was not being founded by a clique, or that only people holding certain views would be welcomed. The desire was to found a club which any person of approved credentials, interested in photography and in the progress of the art, might join, to form a common ground where all might meet to discuss their photographic experiences.

Mr. R. Craigie then gave some details of the proposed house in the Adelphi, stating that the rental, inclusive of rates and taxes, would be £250 per annum. To meet the expenses it was proposed to form a limited company, with a capital of £2,000, of which £850 would be required for fitting up the house and opening the club. An annual subscription of three guineas for town, two guineas for country, and one guinea for foreign members was proposed, with, as entrance fee, one ordinary one guinea share in the company.

Lord Crawford then called upon Professor Armstrong, Mr. F. Martin Duncan, and Rev. F. C. Lambert to give their views; and after a brief discussion in favour of the formation of the club, the proposal was put and carried unanimously.

An appeal was then made by the Chairman to those present to take up preference shares and to become members. It was stated that £1,000 must be guaranteed before it would be possible to proceed with the formation of the club. Towards the close of the meeting it was announced that fifty-seven names had been handed in, and that the total amount guaranteed was £670. The meeting was then adjourned until Tuesday, December 7th, by which time it was hoped that the remaining £330 would be subscribed. A vote of thanks was passed to the Earl of Crawford for taking the chair, and for his promise to become president of the club if it were formed.



REVIEWS



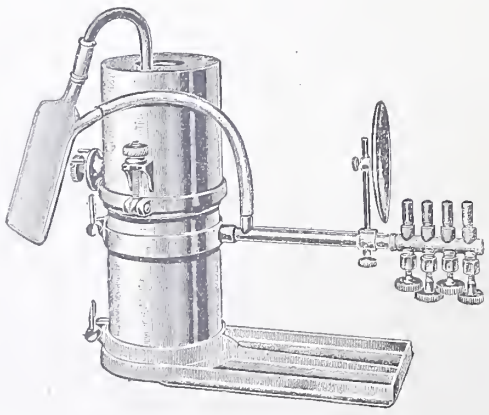
The Wellington Christmas Greeting Cards.

THE various grades of Wellington papers, bromide, s.c.p., self-toning and ordinary P.O.P. are all supplied in postcard form, with artistic designs upon the face, enabling prints on them to be used as Christmas cards. The cards are issued in two sizes, that of the regulation postcard 5½in. × 3½in. and court size, 4¼in. × 3¼in., and the designs are of six different forms. Each packet of the postcards contains an assortment of all the designs, unless the order for the cards distinctly specifies that all are to be alike, and in such case the particular number of the design that is selected should be given.

Many photographers take advantage of the opportunity afforded by Christmas and the New Year to kill two birds with one stone—to send a promised print and to make it the medium of their good wishes. They can do this very readily with these cards, and if they are users of the Wellington papers, as so many are, they can do it without departing from their favourite brand.

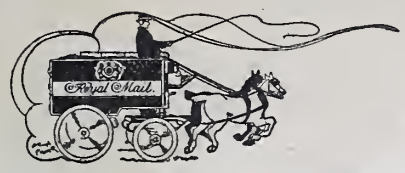
The Klimax Acetylene Generator.

THE problem of an efficient light for the lantern for small displays is one which is better solved by acetylene than by any other illuminant—at least, for those who have not a supply of electric current available; the only question, then, is as to the selection of a satisfactory generator—one which shall be convenient and compact, regular and reliable in its operation, and safe in unskilled hands. One of the best that we have seen, regarded from these points, is the Klimax, which is illustrated herewith; and when we add that it is, in addition, well made and particularly well finished, it will be seen that its makers, Messrs. W. Butcher and Sons, Ltd., of Camera House, Farringdon Avenue, London, E.C., have catered very well indeed for the lanternist who shows at home or to small audiences. For anything up to about an eight foot disc this illuminant gives a very fine and well-lit picture.



A few words will serve to make its construction clear. The vertical cylinder at the back is in two parts, united about the centre by means of a couple of swing bolts with milled-head nuts, one of which can be seen in the illustration. The lower part is the container for the carbide, and the upper is a water chamber. The water flows from the latter through a valve provided with a scale, so that the rate of flow can be regulated to a nicety. The gas passes up by a tube, which is led through the water and out at the top, where it curves over and enters a rubber bag, passing nearly to the bottom of this. The bag acts as regulator and as a receptacle for condensed water. From the side of the bag a pipe passes to the horizontal tube which leads to the four burners and supports the reflector. Each of the burners has its own fine adjustment valve, with a fibre head to prevent it from getting too hot to handle, and the number of burners alight can in this way be regulated to the size of the disc, or to the degree of illumination required. The position of the reflector can be adjusted to a nicety, and the whole system of generator and burners is carried on a tray, which slides into the lantern like a jet tray. The apparatus can be detached from the tray in a moment for cleaning purposes by loosening the two nuts shown at the back.

We recently had an opportunity of using the Klimax generator, and were much struck by its handiness, by the ease with which the flow of gas can be controlled, and by the power of light that can be got from it. Its price, complete, is £2, which the substantial character of its construction, and the well-finished workmanship it displays, make a decidedly cheap figure.



Correspondence.

The Editor is not responsible for the opinions of his Correspondents.

STAINED BROMIDES.

Sir,—With reference to the last sentence in Miss Eva Richmond's letter, *i.e.*, "This may be common knowledge, but I have never seen it mentioned in the papers," may I point out that a note from me appeared in the Correspondence page of *Photography* for October 31st, 1905, on the sulphide toning of stained bromide prints.

A correspondent had stated previously that he had tried to tone a stained bromide in a hypo-alum bath. The bromide did not tone, but was cleared of the stains.

Yours, etc., G. A. T.

PHOTOGRAPHY IN CATHEDRALS.

Sir,—That you are not alone in your criticism of the procedure of the Dean and Chapter of Manchester, in the matter of photographing or sketching in the cathedral, the following extract from the "Architectural Review" for this month will show :

In his review of a recent historical work, "Memorials of Old Lancashire," the writer says : "Mr. Aymer Vallance writes with his usual learning, of roods, screens, and lofts. It seems incredible that he should have to say that the Dean and Chapter of Manchester Cathedral refused him permission to photograph or measure the stonework. This seems a case of clerical obscurantism with a vengeance."

I am pleased, however, to think, so far as my own experience goes, that very few, if any, of our cathedral authorities assume such a dog-in-the-manger attitude towards the photographer who seeks to portray the architecture of which they are custodians. In my own case, a properly worded request in writing has invariably met with a courteous permission being given me. Manchester, however, may be the exception which proves the rule.

Yours, etc.,
ROBERT J. SHIELDS.

Sir,—While expressing our high appreciation of the action of the Dean of Peterborough with respect to the welcome he affords to photographers, we must be careful not to indulge in sweeping assertions as to the authorities in our other cathedrals.

I think I am not mistaken in saying that the Dean and Chapter of Durham have for many years been equally liberal in their treatment. When I was there fully twelve years ago no permission to use the camera in the cathedral was required. Every possible facility was accorded to me, a perfect stranger, and I shall never forget the extraordinary amount of trouble which was taken on my behalf by a verger who was then, and may be still, well-known in England and the Continent for his courtesy and for his wide knowledge on the subject of Gothic architecture.

Yours, etc.,
H. SELBY.

STEREOSCOPIC PICTURES IN COLOUR.

Sir,—We were interested in reading the article on page 419 of last week's number of your paper on "Stereoscopic Transparencies with the Dichromic Screens," as only recently we were thinking out a similar process in which the prints were produced by the three-colour process.

A red screen is used with one of the lenses of the stereoscopic camera and a green screen with the second lens. A double exposure is then made through the two lenses simultaneously on an isochromatic plate. A third exposure is then made through the lens with which the green screen was used, but this time with a blue-violet screen, and on a half-sized plate, which need not be isochromatic.

Half-tone blocks are then made from the three negatives thus obtained. The block from the red screen is then printed in the usual printer's ink complementary to red. The other two blocks are used to produce a bi-coloured print, each being printed from in the complementary colour to that of the taking screen.

The two pictures are then mounted side by side at the proper stereoscopic distance apart, the greenish-blue picture from the red screen being viewed in the stereoscope with one eye, while the combined yellow and pink picture from the other two screens is viewed with the other eye. The result should be a stereoscopic picture in the natural colours, quite as good as those taken with the mixed screens mentioned in the article in your last.

We do not know whether this idea is new, but you are at liberty to publish it for what it is worth.

Yours, etc.,
W. H. PHILLIPS AND SON.

BUSINESS NOTICES.

OFFICES.—20, Tudor Street, London, E.C. Telegrams: "Cyclist, London." Telephone: 5610 and 5611, Holborn.

PUBLISHING DATE.—PHOTOGRAPHY AND FOCUS is on sale throughout the United Kingdom every Tuesday morning.

SUBSCRIPTION.—PHOTOGRAPHY AND FOCUS will be forwarded regularly at the following rates:

GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
Twelve Months	6	6	Twelve Months	10	10
Six Months	3	3	Six Months ..	5	5
Three Months ..	1	8	Three Months..	2	9
Single Copy		1½	Single Copy ..		2½

REMITTANCES.—Postal Orders, Cheques etc., should be crossed and made payable to ILIFFE AND SONS LIMITED.

ADVERTISEMENTS.—All communications on advertisement matters should be addressed: The Advertisement Manager, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C. All copy for displayed advertisements for the issue of any particular week must reach Tudor Street by the first post on Monday morning in the week previous.

PREPAID ADVERTISEMENTS.

SALE AND EXCHANGE (for Amateurs only). —6d. per line of eight words. Minimum, 1s. Any portion of a line (eight words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days, and if no sale is effected each party to the transaction pays carriage one way. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

PUBLISHING NOTICE.—Communications for the Publishers should be addressed: ILIFFE AND SONS LIMITED, 20, Tudor Street, London, E.C

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TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

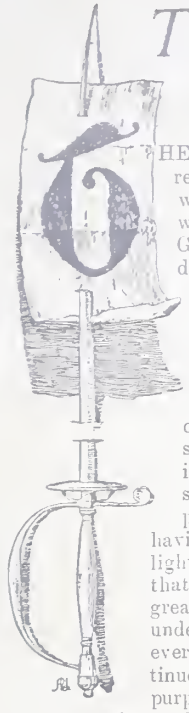
PRINTS FOR REPRODUCTION.—Reproduction fees are only paid by arrangement beforehand. The sending of a print, without any condition stated, will be taken as permission to reproduce it without fee. The Editor will be glad to consider for publication, with or without letterpress, photographs of special interest, on terms to be arranged.

PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment

The Dufay Process of Direct Colour Photography.

Special to "Photography and Focus."



THE latest process of colour photography to reach the commercial stage is the Dufay, which is being put on the market by a well-known firm of plate-makers, Messrs. R. Guilleminot, Bœspflug, et Cie., of 22, Rue de Chateaudun, Paris. We have recently had an opportunity of working with these, and so are able once more to give our readers the very latest news on the subject.

Like the Thames plate, the Dufay screen plate (filtre dioptichrome Dufay) is used apart from the sensitive plate, which is merely placed in contact with it for exposure, and subsequently for viewing. The screen plate itself is extraordinarily perfect, having to all appearances nothing but a light brownish grey tint, something like that of the autochrome screen, but of greater transparence. On examining it under a powerful magnifying glass, however, it is seen to be composed of continuous green lines in one direction, with purple and red lines, broken by the green ones, at right angles thereto. The regularity of the ruling, which is well shown by the photomicrograph on this page, is most remarkable, and that residual colour, varying with the angle, sometimes to be seen in these ruled screens, is conspicuously absent.

The colour screen has a very delicate surface. It is easily scratched and injured, and so it is supplied in a little metal frame, with springs and registering points, so that there is no difficulty in putting the finished plate back in exactly the same position as it occupied during exposure. This is emphasised in the instructions, which point out that if the photographer has several screen plates he should mark his exposed plates so as to know to which screen plate each belongs.

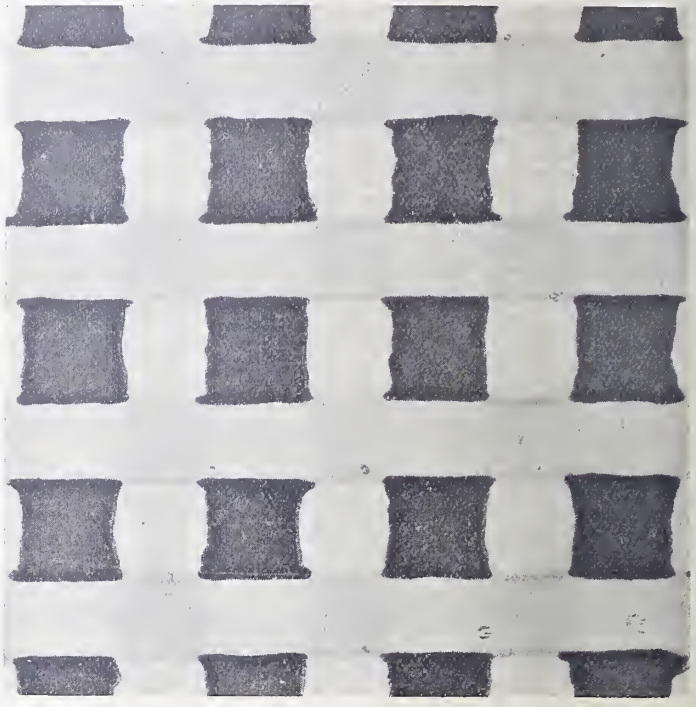
Panchromatic plates of a special kind are supplied for use with the screen plate, and a suitable yellow light filter for the lens completes the list of requisites. The exposure required is about one-half that for the Autochrome, but this is subject to correction, as the poor light in London since the plates reached us has prevented anything in the shape of a series of comparative trials from being made. Our impression was that we should have given the autochrome about double what we gave the Dufay. The plates were developed in a metol-hydrokinone bath of the following composition:

Metol	30 grains
Sodium sulphite (crystals)	375 ,,
Hydrokinone	10 ,,
Potassium bromide	10 ,,
Liq. ammonia	1 dram
Water	10 ounces

Equal parts of this and of water make the developer, in which development is complete, in the ordinary way, in four minutes. After development it is rinsed for two or three minutes under the tap, and reversed in a solution of twenty-five grains of potassium bichromate in ten ounces of water, to which a dram of sulphuric acid has been added. Finally, the image is blackened either in the solution used for the first development or in an ordinary metol-hydrokinone developer; the plate is then washed and dried. To see the image in colour it is placed in the little holder with its film in contact with the film of the screen.

The colour rendering is, on the whole, very good. The weakest point, as with all these screen plate processes, seems to be with the different shades of green; black, white, and greys are rendered with that fidelity which, when we first saw it in the autochrome, seemed positively startling. The makers point out that the extreme transparency of the results makes them very suitable for lantern use, and we hope in the next few days to have an opportunity of seeing our own results projected on the screen.

Although we do not think that there can ever be any great commercial future before screen plate methods in which the plate is distinct from the screen, it is impossible not to recognise that in the Dufay screen we have an extraordinarily perfect geometrical screen, of pure and transparent colouring, and provided with a satisfactory mechanical device for speedy, simple, and exact registration. The screen plate, 9 × 12, in its frame, sells at 5 francs, the plates for it cost 2 francs the box of six, yellow screens from 2 francs upwards.



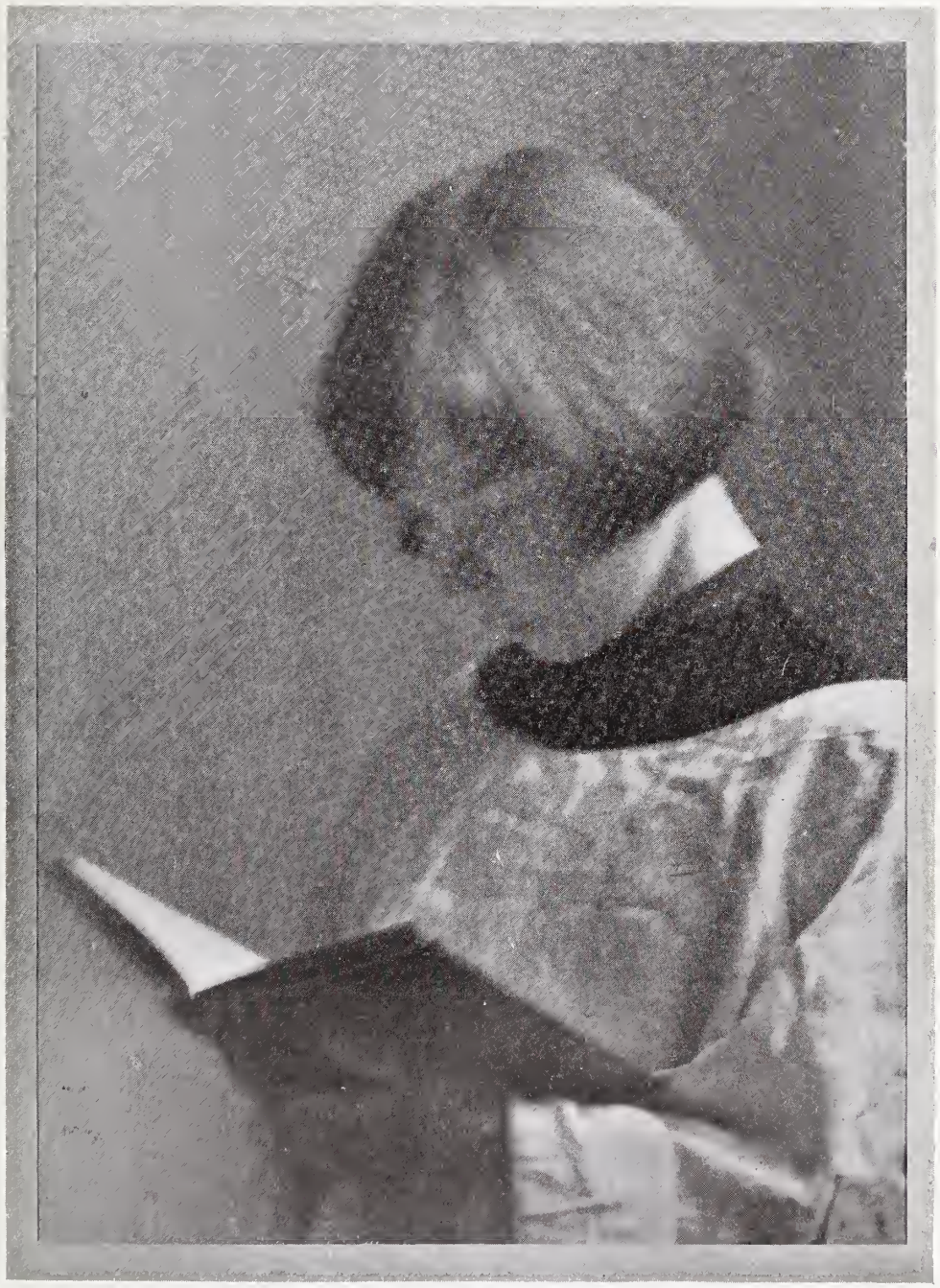
THE "DUFAY" SCREEN PLATE X 120 DIAMETERS.
Photomicrograph by A. E. Smith.

The Tabloid Ozobrome Pigmenting Compound.

THOSE who work the ozobrome process may be glad to know that it is possible to obtain in tabloid form the contents of the ozobrome pigmenting bath, Messrs. Burroughs, Wellcome, and Co. having now issued tabloids the composition of which is made up to Mr. Manly's patented formula.

These, like the solution itself, may be used for bromoil, as well as for ozobrome, and we do not doubt that many of our readers will avail themselves of the convenience of the tabloids in preference to the purchase of the compound in liquid form.

There is very little that need be said about them. A carton containing fifteen tabloids is supplied at a cost of 1s. One of these tabloids dissolved in an ounce of water makes the working or diluted pigmenting solution, as laid down in the instructions of the Ozobrome Co.



THE CHOIR BOY. BY CHARLES R. PHIPPS

The original of this picture was No. 10 *at the Exhibition of the Royal Photographic Society.*



"Above Westwater" by Sidney J. Taylor No. 85 at the Ars.

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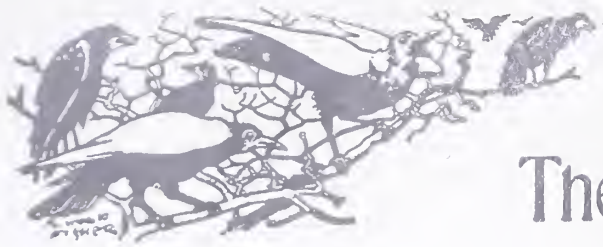
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MARCUS HEBER SMITH



The Week's Meetings.

MONDAY, NOVEMBER 29TH.

S. London P.S. "Preparing Negatives for Pictorial Purposes." E. W. Taylor.
Preston C.C. Ten Minute Lectures.
Equitable P.S. Beginners' Night. Apparatus.
Southampton C.C. "Ensyna." F. J. Stedman.
Exeter C.C. "Large Prints from Small Negatives." W. F. Slater.
Leeds C.C. "Art and Photography." Rev. H. W. Dick.
N. Middlesex P.S. Evening Outing.
Canterbury C.C. "Orthochromatics." A. H. Dodman.
Colne C.C. Competition.
Leek P.S. Prize Slides.
Manchester U.P.S. "Exposure and Development." Dr. A. T. Lakin.
Stafford P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Wallasey A.P.S. L. & C.P.U. Slides.
Bradford P.S. "Tramp Along S. Cornish Coast." W. Waring.
Scarborough & D.P.S. "A Sicilian Holiday." R. F. Jameson.
Bishop Auckland P.S. "Night Photography." A. H. Blake.

TUESDAY, NOVEMBER 30TH.

Leeds P.S. "Walks in English Lake District." G. Middleton.
Bradford G.S.P.S. "Polar Exploration." G. H. Martin.
Hackney P.S. "Handwork on Negative and Print." B. C. Wickison.
Reading L.C.P.S. "Large Prints from Small Negatives." W. F. Slater.
Fernhead W.G.P.S. "Lantern Slide Making." J. Hoyben.
Blyth and D.C.C. Leeture. Burroughs, Welleome, and Co.
Forest Gate C.C. "Autochromes." S. B. Goddard.
Nelson C.C. "Ozo-oil." T. Lister.
Birmingham P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
North & D.P.S. "Autotype Carbon Process."
Burnley C.C. Prize Slides.
Doncaster C.C. "Elements of Architeetural Photography." J. R. Wigfull.
Nelson P.S. "Lantern Slide Making." W. Duxbury.
Otley & D.C. & A.S. Posteard Competition.
Glasgow S.P.A. "Photographic Facts and Fallacies." Burroughs Wellcome.
St. Helens C.C. "Rambles Round Coniston." Rev. W. Holroyd.
Royal. "Scenery in Ceylon and Burmah." S. E. Tench.
Padiham P.S. "Development." J. Boocock.
Rotherham P.S. "Peeps at Nature with a Camera." Rev. B. Butler.
Horwich I.A.P.S. "Newest Printing Methods." W. H. M. Parr.

WEDNESDAY, DECEMBER 1ST.

Sale P.S. "On the Broads." F. Mahler.
G.E.R. Mech. Inst. "Development." H. W. Bennett.
Ealing P.S. "Practical Bromide Enlarging." W. Watson.
Woodford P.S. "Large Prints from Small Negatives." W. F. Slater.
Coventry P.S. Prize Slides.
Tamworth & D.P.S. Thornton-Pickard Prize Slides. R. Hesketh.
Croydon C.C. "Some Walks in Surrey."
Ilford P.S. Slide Competition.
Grimsby & D.C.C. Meeting.
North Middlesex P.S. Annual Exhibition.
Leicester & L.P.S. "Winter in the Alps." T. Cheyne.
South Suburban P.S. "Screen Plate Colour Work." H. E. Corke.
Borough Poly. P.S. Lantern Slide Competit on.
Sheffield F.S.P.S. "Improvement of the Negative." B. Welbon.

THURSDAY, DECEMBER 2ND.

Trent C.C. Members' Print Exhibition.
Preston C.C. "Combination Printing." W. Dresser.
Heaton & D.C.C. "How to Take Photographs by Flashlight." F. C. Hart.
Southend-on-Sea P.S. "Large Prints from Small Negatives." W. F. Slater.
Burnley C.C. Annual Exhibition.

THURSDAY, DECEMBER 2ND (*continued*).

Batley & D.P.S. "Thames from Windsor to Oxford." A. Hougbton.
Rodley, Farsley, Calverley & B.P.S. Members' Night.
Handsworth P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Hull P.S. "In Central France." J. V. Saunders.
Watford C.C. *Photography and Focus* Prize Slides.
Rochdale A.P.S. "Developers and Development." J. P. Cheetle.
Chelsea & D.P.S. "Faults and their Remedies."
Brighouse P.S. "Birds of the Farne Islands." W. J. Forrest.
Leigh P.S. "Methods of Illustration." W. Perry.
Glasgow E.P.A. "Developing and Toning Bromide Papers." J. Martin.
Armley & Wortley P.S. "Control in Simple Combination. Printing on Bromide Paper." H. G. Grainger.
Cardiff Windsor P.S. "Trip in W. Somerset." Miss Coates.
Midlothian P.A. "A Midlothian Burn." J. Reid.
Richmond C.C. Members' Lantern Night.
Brunswick C.C. "Bromide Enlarging." F. A. Tinker.
Small Heath P.S. "Noctona."
Dundee & E. of S.P.A. "Shetland Impressions." Rev. H. M. Davison.
Rugby P.S. "Enlarged Negatives." R. E. Woolmer.
Dublin C.C. "Stereoscopic Photography." V. E. Smyth.
Liverpool A.P.A. "Bromoil." F. J. Mortimer.

FRIDAY, DECEMBER 3RD.

Bromley C.C. "Making Positives."
Isle of Thanet P.S. "Large Prints from Small Negatives." W. F. Slater.
Sutton P.C. "Surrey Walks."
Birkenhead P.A. "Genre Figure Studies." T. L. Syms.
Loughboro' & D.P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Beeston P. & A.C. Prize Slides.
Plymouth P.S. "Sports and Pastimes." C. P. Goerz.
Bromley C.C. "Making Positives before Making Enlarged Negatives." W. C. Pettigrew.
Mill C.C. Lantern Slide Printing Competition.
Lineoln P.S. Lantern Slide Competition.
Manchester Y.M.C.A. P.C. "Wellington Plates and Papers." H. Wade.
Cowlairs C.C. "Work with Hand Camera." C. P. Goerz.

SATURDAY, DECEMBER 4TH.

Glasgow & W. of S. A.P.A. Exhibition.
Edinburgh P.S. "A Voyage Round Coast of Ireland." F. M. Chrystal.
Bolton C.C. *Photography and Focus* Prize Slides.

MONDAY, DECEMBER 6TH.

South London P.S. Lantern Slide Competition.
Bradford P.S. Members' Prints.
Wolverhampton P.S. "Middleburg and District." W. Marks.
Preston C.C. "Norway." G. J. Gibbs.
Equitable P.S. Lantern Slide Making.
Glasgow & W. S. P.A. "Large Prints from Small Negatives." W. F. Slater.
Southampton C.C. "Radiography." Dr. Norman E. Aldridge.
Bradford P.S. Members' Prints.
Colne C.C. "Bromide Enlarging." W. Hartley.
Oxford C.C. Members' Competitions.
Stafford P.S. "Carbon Printing." W. L. Hey.
Cripplegate P.S. Lantern Slides. Messrs. Wheatley and Clarke.
Leeds C.C. "Manipulation of Negative for Pictorial Effect." H. G. Grainger.
Bowes Park & D.P.S. "Bird Hunting in the Balkans." R. B. Lodge.
Leek P.S. Lantern Night.
Walthamstow P.S. "Through Algeria to the Sahara." F. G. Newmareb.
Catford & Forest Hill P.S. "Bromoil." A. H. Garner.
Bishop Auckland P.S. "Ozobrome." W. Pickering.

Societies will have their meetings announeed bere if the syllabus is sent to us at the beginning of the session or from time to time.

The Ensign Christmas Greeting Cards.

AMONGST the many Christmas card mounts which make their appearance yearly at about this time those issued by Messrs. Houghtons, Ltd., of 88 and 89, High Holborn, London, W.C., under the trade name of Ensign enjoy a well-deserved popularity. Year by year the new designs develop along lines indicated by previous years' successes, and so we find that the cards in their comprehensive and fully illustrated list are emphatically cards that sell.

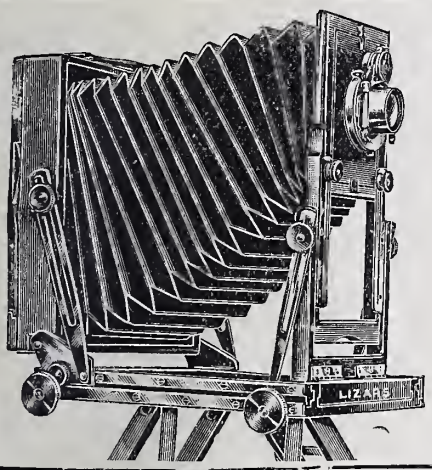
The list for 1909 has just come to hand, and with it a batch of sample cards, amongst which we look in vain for any which are likely to go begging. Here are cards for those of quiet tastes, cards for those who like something more pronounced, cards for the amateur who wants to use a picture of full postcard size, and cards for tiny prints only an inch and a quarter wide. If we single any out for special mention it is only that those are the cards we ourselves would fancy, not that they are any better than others we pass by.

In this category would certainly come, for example, a design known as No. 2122, a stout ivory card with a spray of wisteria embossed on it and tinted, and a tinted silk ribbon to match. For upright prints, $3\frac{1}{4} \times 2\frac{1}{4}$, slip-in style, these cards sell at 2s. a dozen. Another charming design is that of No. 2053 and 4, having a circular opening $2\frac{1}{4}$in. or $2\frac{7}{8}$in. in diameter, a four-leaf card, bound with a brown silk ribbon, and decorated with an embossed design in green and brown. But there are many others, illustrated and described in the list, for which we recommend our readers to drop a line to Messrs. Houghton.

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British Made. **"CHALLENGE"** **British Quality.**

Simplicity. **CAMERAS.** Efficiency.



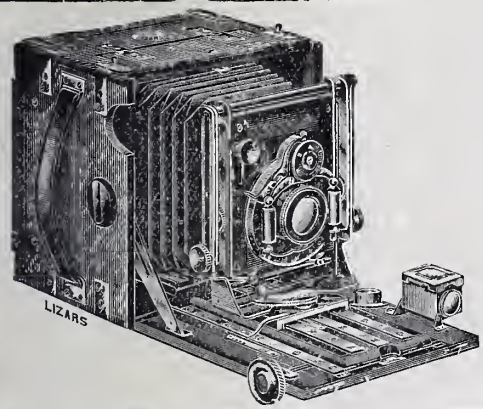
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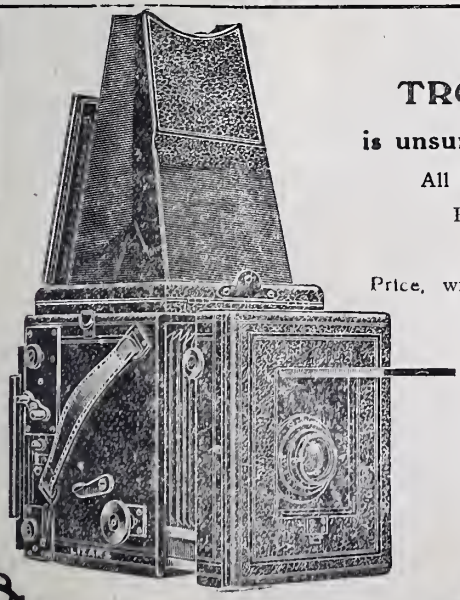
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(PATENT).

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Cameras and Slides are made of Teak Wood,
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A Printing Process for Winter Evenings.

Giving Prints in any Colour and on any Surface of Paper.

By H. J. S. Anderton. Special to "Photography and Focus."



AMONGST the many ways by which a negative may be printed, the one described below is not so well known as it deserves to be, since it is not particularly difficult, or involved, wants no great quantity of special apparatus or material, and in point of cost is one of the cheapest, as it is in point of time one of the quickest of printing methods. Although at one stage daylight is necessary, the greater proportion of the operations can be done at night, forming as they do an excellent occupation for winter evenings.

The process is in reality a very simple form of collotype, and the material used is an ordinary dry plate. No doubt many photographers at this time of year have plates left over from their summer's work, and they may be doubtful whether they will keep in good condition until another holiday comes round. Such plates, even if stale, serve very well for the work in hand. The other apparatus needed for the process is merely an ordinary office letter-copying press, a printer's composition roller, and some lithographic ink, together with a porcelain dish or two, such as every amateur photographer will have by him, large enough to take the size of plate used. A dark room is not necessary at any stage of the work.

The first thing to be done is to soak a plate for a few minutes in the following solution :

Potassium bichromate ...	¼ ounce
Water	5 ounces
Ammonia .880...	25 drops

Ammonium bichromate may be used instead of the potassium salt if preferred. After about five minutes' immersion, the plate is taken from the dish and allowed to drain for a minute or two, after which the surplus solution is blotted off. All this may be done in full daylight, as the plate while it is in this wet condition is not in the least sensitive to light.

The next stage is the drying of the plate, and this is conveniently accomplished by placing it either on the kitchen range or in a moderately hot oven, taking care that it is not made hot enough to melt the film. When once it is dry, it must be borne in mind that the plate is very sensitive to light, although it is practically insensitive while it is wet, so that the blind of the room in which the work is being done should be drawn down while the plate is being handled in the dry state.

On the plate so prepared the negative has to be printed. In selecting a suitable negative for the purpose, it should be noted that in this process the print will be reversed right for left, as in the single transfer carbon process, so that a film negative printed through the back of the film will answer very well. Some subjects, as for example flower studies, may be printed either way without much loss of quality, and for these the unreversed glass negative will be suitable. A negative with plenty of density, but free from stain and hardness, will make the best print. Harsh, under-exposed negatives must be carefully shunned; it is far better to have proper gradation even at the expense of a little loss of density. The negative chosen, it is put in the printing frame with the prepared plate upon it, film to film, making sure that the two are in the most perfect contact attainable. Printing is carried on until a faint impression, no stronger than is to be seen on a properly printed platinotype, is seen at the back of the plate. The printing is very rapid, and should be carefully watched. Printing should not be done in direct sunlight.

When the photographer considers the printing to be finished, the frame is taken indoors and the negative, which is now done with, is put away. The plate is then put back into the frame, but this time with its glass side outwards, and is held in daylight at the window for from ten to twenty seconds, not for more.

The next proceeding is to put the plate face upwards in the dish and to cover it with water, changing the water from time to time until the yellow of the bichromate is discharged. The plate is then once more insensitive to light,



AN OLD GATEWAY. BY H. J. S. ANDERTON.

From a print made as described above.

NOCTONA

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Realisation. By H. E. Fleay.

and when the washing water ceases to show the slightest sign of yellowness, the film may be blotted off and dried, this time without heat. The image will then almost have disappeared. At this stage the proceedings may be interrupted until a convenient opportunity for undertaking the printing arises.

When the plate is quite dry the edges are rubbed with an ordinary paraffin candle, so as to give them a border of wax about a quarter of an inch wide all round the plate, and it is then put in water for two or three minutes, and afterwards is allowed to soak for fifteen or twenty minutes in a mixture of two ounces of glycerine with one ounce of water. While this soaking is going on, preparations for the actual printing may be made.

A little piece of the lithographic ink is taken on the point of a knife and put on a piece of glass or sheet of tin, spreading it as evenly as possible in a patch about the width of the roller. One should be careful not to use too much ink, and if it be too thick a very little linseed oil (a mere trace) may be added. The ink is then spread thoroughly over the slab by means of the roller.

Returning to the plate, which has been soaking in the glycerine and water for a quarter of an hour or twenty minutes, it is removed from the dish and as much as possible of the liquid is allowed to drain off. The remainder is wiped off with a soft sponge, finishing the wiping with a piece of fluffless blotting paper, when the plate is ready for the process of inking and printing.

The inking is done by passing the ink-charged roller over the surface, slow rolling putting on ink and rapid rolling taking it off. The two operations must be employed until a clean positive image is seen on the plate. When this is the case, a mask with an opening smaller than the plate is put in position upon it, and finally on that is placed the paper which is to receive the picture. It need hardly be said that this is only ordinary paper, and is not sensitised or prepared in any way, so that in the selection of paper the amateur has an almost unlimited choice both of surface and tint.

To pull the impression, a sheet of blotting paper—one thickness only—is laid on the bed of the press, and on this paper is placed the plate, bearing the mask and the paper on which the print is to be made. On this is placed one or two pieces of felt or very thick cloth, and on this again a sheet of zinc. This is all arranged in the press, which is then screwed down. Considerable pressure is needed, but care must be taken not to crack the plate. In order to make quite sure on this point, one has to be careful to see that it has an absolutely even bed to rest on, as a particle of anything solid under it will cause disaster.

The pressure being released, the plate is taken out and the paper peeled off, when, if all has gone well, it will bear a good impression of the original negative. The plate may be inked up again and a fresh impression made in the same way, and so on. After a time the pictures will begin to get flat and grey, and the plate should then be returned to the glycerine solution for a few minutes, which will put it into working order when it has been wiped and blotted as before.

The process may be carried on until the film leaves the plate, but this will only be after a very long time and a very great number of impressions have been taken, if it is used with care, and if the border of wax has been well and carefully applied. The solutions may be used over and over again. The bichromate solution, it should be noted, is poisonous. The inking slab, plate, and roller may be cleaned with a little turpentine.

The illustration on page 446 is made from a print made in this way by the writer, and will serve to show that vigour, gradation, and detail are easily obtained with it. The colour of the lithographic ink may be chosen to suit the particular subject that is being printed.



Aggravation. By H. E. Fleay.



NEGATIVE
WELLINGTON
SPEEDY PLATE
HALF-TONE FROM CARBON
BROMIDE ENLARGEMENT



"The time has come, the Walrus said, to talk of many things."

ALTHOUGH I have from time to time written what I consider the standard articles, whatever others may think, on practically every phase of photographic work and every kind of apparatus, accessory, and material, I do not remember to have discoursed to any extent on the subject of dishes. This is an oversight that must be forthwith remedied. As far as I know, there is absolutely nothing to be said about dishes, but I am so used to making large quantities of whacking great bricks without a shred of straw that that fact does not discourage me in the least. On the contrary it acts rather as a spur; and I believe that if the editor demanded a thousand-word article on a lens cap I should sit down to the task with confidence and a ten horse-power smile. It is astonishing how much can be made, with practice, out of nothing, especially when a large chunk of space is successfully filled with irrelevant preliminary remarks.

* * *

As a rule, the photographic novice entirely neglects to provide dishes as a part of his original outfit. This is due, not so much to ideas of economy, as to an entirely erroneous estimate of the utility of various specimens of domestic crockery upon which he has his eye, and presently his hands. It is a rude shock to his confident anticipations to find that the common or breakfast saucer will not accommodate a quarter-plate. The said plate only touches the saucer by its four corners, and there is a yawning space underneath it capable of holding vast quantities of developer. A pie dish is found to hold the plate easily, but it holds still vaster quantities of solution easier still. As a natural sequel the two crocks are revengefully shattered into jagged fragments on the unresponsive ground. Even when exceptional china or glass articles are found adequate to photographic requirements, frivolous objections are raised to combinations of apple pie and cyanide, or blanc-mange and mercury, and a few harmless and really decorative stains are eyed askance.

* * *

In desperation the beginner adopts the suggestions of some cock and bull article, and proceeds to manufacture dishes from old plate-box lids. These, with much expense, labour, and regrettable language, he attempts to make watertight by means of wax, varnish, tar, Brunswick black, indiarubber, and goodness knows what. By the time the article is really waterproof the interior is entirely filled up with these substances, and he finds himself the proud possessor of a number of irregularly rectangular solid blocks, in which the original cardboard box is somewhere buried. It may be a monument of industry, but it is no dish

* * *

He then makes a plunge and buys some cheap *papier maché* articles, which in a surprisingly short time revert to their original condition of mashed paper. He swears again, and buys celluloid dishes. These are very gay and nice, and he feels pleased. Then he treads on one he has put on the floor, and is no longer pleased. He spends many hours in attempting to repair the damage with his tar, wax, etc. Then he throws it on the fire and sets the chimney alight. He also makes the discovery that the larger xylonite dishes he has not yet broken have a playful habit of sagging suddenly when lifted by one corner and depositing their contents in his boots

* * *

It is at this stage that he lavishly takes unto himself lordly dishes of porcelain and eke of glass. The latter speedily go the way of all glass while the former rapidly develop on their virgin surfaces a series of comic railway maps. The network of cracks composing these maps has a villainous object. Each minute crack stealthily absorbs certain miscellaneous chemical substances to which it relentlessly clings, till it finds an opportunity of releasing them when they can do some sudden and irreparable damage. Against this malicious propensity water fights in vain and monkey soap is reduced to utter impotence. It is all very well to say that one dish should be reserved for one purpose, but this would mean a stock of dishes beyond the wildest dreams of a wholesale china merchant. Moreover, in spite of the most solemn and blood-thirsty warnings, dishes of this type are invariably employed for illegitimate domestic purposes as a sort of rude revenge for the saucer and pie dish episodes of other days. It is, alas, no uncommon experience on going for some dishes to do photographic work of much urgency to find that one contains the remains of a cold Yorkshire pudding, that another is filled with Dolly dye or dog soap, while of a third nothing is left but the lip, which appears to be decorated with some adherent bacon fat. "I tell you that which you yourself do know" (Shakespeare).

* * *

There is no type or grade of photographic dish which I have not, to my sorrow, used; there is no single devilry inherent in such dishes that I have not experienced. I have used such tiny dishes that the single tear of excusable disappointment falling therein has caused them to overflow. But my fiercest and most muscular delights have resulted from the manipulation of what may be truly described as man's dishes. These I used in the manufacture of bromide enlargements of such acreage that no dish of less than Brobdingnagian dimensions would have answered The bottoms thereof were of plate glass like unto a shop front, while the wooden walls that surrounded them could only be overlooked by scaling ladders. Into these reservoirs developer was poured from many capacious pails. To rock them demanded the strenuous efforts of three men and a boy.

* * *

Recollecting my Herculean labours with those dishes I have often smiled at the advice given to run over the surface of the plate or paper with a soft camel hair mop to remove bubbles. A mop! Why, I used to tuck up my trousers and run about over the prints in those dishes, and stamp on the bubbles with my feet. No one knows what bubbles are till he has used dishes of that size, and poured on the developer from pails. They were something like bubbles. Some of them defied all stamping on, and had to be cracked with a sledge hammer.

* * *

I think I have now given enough reliable information about photographic dishes to be going on with, and I have endeavoured to do so without exaggeration or departure from the bare truth. Perhaps my memory plays me false about those bubbles, but the other statements are more or less accurate

THE WALRUS.

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Lightning Processes.

Showing how a finished, mounted print can be made in an hour or less from the time at which development of the negative was begun.

AN amateur photographer showed us the other day an excellent mounted bromide print, expressing, as he did so, great surprise at the quickness with which it was produced. A number of persons were photographed before they set out for a drive of some three hours' duration, and on their return these mounted copies were offered them for sale. The amateur worker who is accustomed, perhaps, to allow three hours to elapse between starting to develop a negative and putting it in the rack to drain and dry, may well wonder how it is possible to compress everything, including the production, drying and mounting of the print into this short time; and as there may be occasions when he, too, would like to be able to do work almost if not quite as quickly, some of the stages at which time may be saved may be pointed out.

Before doing this, however, it will be as well to note that, although for some purposes these "lightning prints," as they have been called, will do just as well as those produced more deliberately, where the lasting character of the print is concerned its fixing and washing, at any rate, should not be hurried over too rapidly, whatever may be done in other directions in the way of saving time.

MEMORANDA *for the week.*

Reserved for special offers which, when they appear here, we advise our readers to accept.

Time Saved in Development.

We will assume that the photographer has an exposed plate in his dark slide, from which he is anxious to obtain a finished print, for press purposes, let us suppose, in the shortest possible time. If minutes are of importance he will use a powerful and quick-acting developer, and will take care that it is not diluted any more than is necessary to prevent fog. The favourite for this purpose seems to be metol-hydrokinone, but the Imperial pyro-metol formula, ortol, and amidol, all have their supporters.

A plate may be developed in considerably less than a minute; but such haste as that is to be deprecated, as it means that the developer is too rapid to be under control. Such a degree of concentration and alkalinity as allows the plate to be fully developed in from two to three minutes is best, and gives opportunity for determining with sufficient accuracy how far to carry the action of the developer.

There is no reason why the negative should be fogged because the developer is a quick-acting one; and if there is any sign of fog on its unexposed edges it is an indication that the developer is too strong in alkali for that particular make of plate. The alkali should be reduced, and no attempt made to prevent the fog by adding bromide. In fact, it is not unusual to find negatives developed very quickly to be freer from fog rather than the reverse, owing to the much shorter time that they are likely to be exposed to the dark-room light. Where the maker gives a metol-hydrokinone formula for his plates, the developer can usually be made more rapid merely by using less water. One must see, also, that it is not used at too cold a temperature.

No Need to fix the Plate.

All said and done, there is not much opportunity for time-saving in development, but at the next stage things are very different. There is no immediate need to fix the negative before printing from it, although if there is time enough it is well to do so. When, however, minutes are of importance, the plate is taken out of the developer and laid face upwards under the tap for a minute or so. In the meantime a piece of

bromide paper is put in a dish of clean water to soak, and its sensitive surface is then brought into contact with the film of the negative; the two are placed between a few pieces of clean blotting paper and gently squeegeed into contact. The glass side of the unfixed negative is wiped dry, and the exposure made in the usual way, making a considerable increase in exposure to allow for the light stopped by the white silver bromide which has not been fixed out. After exposure, the bromide paper is pulled off and developed as usual; and after as many prints as may be required have been made in this way, the negative may be fixed, washed and dried, just as in the ordinary course. In fact, there is no reason why it should be any the worse for its experiences.

Printing from a Wet Negative.

Although the method just described is practical, and is, indeed, often adopted, the presence of the unfixed image is not advantageous, and if time will permit it is better to fix the negative, and give it a minute under the tap to take the worst of the hypo out of it. There are then several methods by which a print can be obtained from it without waiting for it to dry.

It is no longer possible to squeegee a piece of wet bromide paper to it, as the hypo in the film would injuriously affect the paper, and the time required properly to wash the hypo out is out of the question for rush work. But other methods are at hand, as good if not better.

The Use of an Enlarging Lantern.

The simplest of these, and in many respects the best, is, after wiping the glass side of the negative dry, and gently scraping all the surface moisture off the film side with a soft rubber squeegee, to put it into an enlarging lantern and make an enlargement from it, straight away, of any required size. It may be news to some of our readers that it is as easy to make an enlargement from a wet negative as from a dry one; but it is nevertheless a fact.

The only precaution that need be taken is against the melting of the film from the heat of the enlarging lantern; and if there is any risk of this, half a minute in a five per cent. solution of formalin will be found a complete safeguard. All depends on the illuminant, and the make of plate. With incandescent gas in the lantern there should be no risk with any plate, unless the exposure exceeded ten minutes; but the films of some plates are so hard that they will stand any illuminant without special treatment of any kind.

Printing by Contact from a Wet Negative.

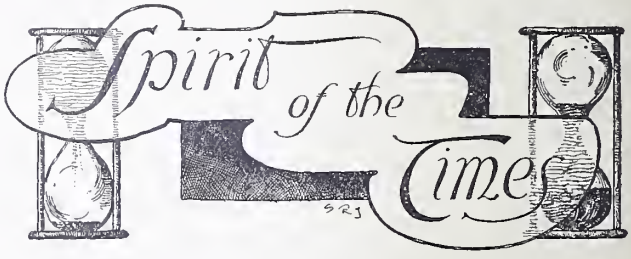
But an enlarging lantern is not a necessity. Those who read their *Photography and Focus* with due care will know that methods of printing from wet negatives without wetting the paper are by no means unknown. The course most generally followed is to squeegee upon the wet negative a piece of thin clear sheet celluloid. Spoiled roll film, with its coating carefully removed, answers perfectly. The glass side of the plate is wiped dry, care is taken not to wet the outside of the celluloid, and, the printing paper being laid down in the frame upon it, the exposure is made in the usual way, just as if the negative were dry.

An alternative method, published quite recently, is to use waxed paper instead of the celluloid; but the stronger character of celluloid would certainly seem to be preferable. It may be pointed out that the slight separation between the negative and the printing paper, due to the interposition of the thin sheet of celluloid, is without any injurious effect upon the definition; in fact, when the exposure is made to artificial light in the usual way it is not noticeable.

Hurrying the Print.

When the print has been exposed there is not much opportunity for saving time in its development or fixing; but these are not operations of a very lengthy character. After it has been fixed, it should be washed in constant changes or in running water for as long as time will permit. It is then either dried as it is, or, if time is very valuable, is given a minute in a five per cent. solution of formalin, and is laid down on a clean piece of glass or ferrotype. Dry blotting paper is put on the back of it, and squeegeed well into contact, the blotting paper being changed once or twice. The print is then stripped off the ferrotype and placed in a current of warm air. It is easy to dry bromide prints in this way in about five minutes, without any risk of injury.

Prints for press work are not usually wanted mounted—at least this rush work is not—but if mounting is necessary, the dry mounting process is to be preferred. In any case, mounted or not, it will be found by working on the lines we have indicated, which are those of press photographers known to us, it becomes a very simple thing to turn out a finished print in an hour or less from the time at which development of the negative was begun.



"Camera Work."

Mr. Stieglitz has just got out another number of his beautiful quarterly magazine. This issue is remarkable for six reproductions in photogravure from pictures by David Octavius Hill, two or three of which are as fine as any of those shown at the Salon this year, if, indeed, they do not surpass them. Mrs. Sharp has an interesting note upon Hill, describing a visit to Edinburgh made "to refresh my memory concerning the husband of my old friend the sculptress, Amelia Hill." A picture by George Davison, "The Art Puffer" by Benjamin de Casseres, a portrait by Paul B. Haviland, and several notes on the Dresden Exhibition, are amongst the most notable contents of the number, which well maintains the standard of its predecessors.

Examinations in Photography.

Elsewhere this week we publish the questions set at the last City and Guilds examination in photography; so that those of our readers who care for the amusement may test their theoretical knowledge of the subject. The examiners, Sir William Abney, Mr. C.

W. Gamble, and Mr. G. Watmough Webster, report that there is an improvement in both the ordinary and the honours grades. In the ordinary grade they state: "Questions concerning the foci of lenses have evidently received more attention from the teachers. . . . It is difficult to lay too much stress on this subject." In the honours grade they advise candidates to "pay attention to remembering the exact formulæ used in the various processes." In view of the phraseology of this last sentence, it is curious to note that they complain that many of the candidates had not had any practice in writing answers to questions. We hope those who contemplate entering for the examination in the future will "pay attention to remembering" this advice. The most serious fault we have to find with the paper of questions is that the highest marks are almost without exception offered for the least useful knowledge.

Shutter Testing.

Messrs. A. Campbell, B.A., and T. Smith, B.A., have favoured us with a description of the apparatus which they have devised at the National Physical Laboratory, for testing photographic shutters; apparatus, to which we have already referred in this column. The method may be described by saying that to measure the duration of exposure, a plate in a dark slide is allowed to fall past the shutter, while this makes the exposure. A mirror vibrating at a known speed reflects through the shutter on to the plate a narrow beam of light. The number of vibrations recorded on the plate gives the time during which the shutter allowed the beam of light to pass. When the efficiency of the shutter is to be determined, the vibrating mirror sends its beam on to the plate direct, and not through the shutter, while, beside the record of time which the vibrations afford, an image of a line source of light, as seen through the shutter, is recorded on the plate. This gives a record at every instant of time of the length of slit through which light was passed by the leaves of the shutter. The arrangement for performing these tests seems to have been very carefully thought out, and is described and illustrated, with results, in a paper published in the "Proceedings of the Physical Society of London," Vol. xxii., and in the "Philosophical Magazine" for November, 1909, to which we refer those who want further details.

Changes in the Linked Ring.

The "Linked Ring," as a body, is conducted in a most astute fashion, and the photographic world is not allowed to know very much of what takes place within that organisation; although, if we admit the claims that are made on its behalf to represent pictorial photography in this country, the photographic world is entitled to know at least something of its constitution and management. The disappearance of the American "Links," which we recorded some months ago, is by no means the only collection of resignations from which it has suffered of late, if report speaks true. Mr. Frederick Hollyer, Mr. and Mrs. Cadby, and Mr. Ward Muir, it is said, have resigned their membership, or linkhood, or whatever it may be called; and the same report affirms that Mr. Craigie is resigning his position as honorary secretary. These losses, coming on the top of an exhibition which it is to be feared will be very far from a financial success, seem to point to soemthing wanting in the organisation or *personnel* of the "Ring." It is significant, too, that both Mr. Alexander Keighley and Mr. Ward Muir exhibited at the R.P.S. this year.

Transmitting Photographs by Wireless Telegraphy.

Readers of the "Daily Mirror" will be familiar with the illustrations reproduced in that journal transmitted to it by telegraphy. Both the Korn machine and the Thorne Baker telectrograph are in use, and a steady improvement in the character of the results obtained has shown that the apparatus and the conditions of its use are being studied and modified as ingenuity suggests. Mr. Thorne Baker, who is in charge of the work on behalf of the "Daily Mirror," read a paper on the subject last week before the Royal Society of Arts, in which he showed diagrams of an apparatus for transmitting photographs by means of wireless telegraphy and some results that had already been obtained with it. The whole essence of the commercial success of photo-telegraphy depends upon the reduction of the time taken to prepare and to transmit the photograph. The mere time of transmission is unimportant if the preliminary operations are of a lengthy character, and the great improvements introduced by Professor Korn and Mr. Thorne Baker in this direction hardly seem to have been realised sufficiently in the discussion which followed the paper. That there must be a great commercial future before photo-telegraphy must be obvious to anyone who studies the progress of journalism, and the way in which the public demand for an illustrated newspaper—illustrated, moreover, by photographs, and not by drawings—is increasing. As Mr. Baker himself pointed out, "the British public seemed to be annoyed if it was offered a sketch instead of a photograph," and the newspaper of the near future will, beyond all doubt, receive its illustrations as well as its reading matter by telegraphy. It is to the credit of those who control the "Daily Mirror" that they have been the first to recognise this and to act on it.

Vignettes on Bromide Paper.

At this time of year the great majority of amateur photographers do their printing by artificial light, on bromide or gaslight paper, and those whose taste leads them to make vignettes experience a difficulty at times in getting satisfactory results. It is generally regarded as much easier to make a good vignette by daylight than by gaslight, but there should not be any difference if only a very simple precaution is taken. The advantage possessed by daylight in this respect is simply in its more diffused character, and if in front of the artificial light some diffuser of an efficient kind is used, it is just as suitable as the other. For gaslight printing, if the illuminant is a Welsbach or other burner, a sheet of thin tissue paper or *papier minéral* may be enclosed between a couple of pieces of glass, and interposed between the light and the vignetter. It should be somewhere midway between the two for the best effect. Ground-glass is as effective. When bromide paper is used for printing, vignetting is best done by protecting the front of the vignetter from all direct light from the flame, and using only light reflected from the surface of a piece of white card.

The Week's Meetings.

MONDAY, DECEMBER 6TH.

South London P.S. Lantern Slide Competition.
Bradford P.S. Members' Prints.
Wolverhampton P.S. "Middleburg and District." W. Marks.
Preston C.C. "Norway." G. J. Gibbs.
Equitable P.S. Lantern Slide Making
Glasgow & W.S P.A "Large Prints from Small Negatives." W. F. Slater.
Southampton C.C. "Radiography." Dr. Norman E. Aldridge.
Bradford P.S. Members' Prints.
Colne C.C. "Bromide Enlarging." W. Hartley.
Oxford C.C. Members' Competitions.
Stafford P.S. "Carbon Printing." W. L. Hey.
Cripplegate P.S. Lantern Slides. Wheatley and Clarke.
Leeds C.C. "Manipulation of Negative for Pictorial Effect." H. G. Grainger.
Bowes Park & D.P.S "Bird Hunting in the Balkans." R. B. Lodge.
Leek P.S. Lantern Night.
Walthamstow P.S. "Through Algeria to the Sahara." F. G. Newmarch.
Catford & Forest Hill P.S. "Bromoil." A. H. Garner.
Bishop Auckland P.S. "Ozobrome." W. Pickering.

TUESDAY, DECEMBER 7TH.

Sheffield P.S. "Spring under Italian Skies." J. D. Johnston.
Leeds P.S. "Making of a Lantern Slide." G. Bingley.
Bradford G.S.P.S. "Norfolk Broads." S. S. Smith.
Hackney P.S. "Helps in Dark Room and Field." H. W. Fitch.
Monklands P.S. "Large Prints from Small Negatives." W. F. Slater.
Fernhead W.G.P.S. Workers' Night.
Loughborough & D.P.S. Prize Slides.
St. Helens C.C. "America and Canada." E. Glover.
Padiham P.S. "Salted Paper." W. MacLean.
Blyth & D.C.C. "Ensyna." F. J. Stedman.
G.W.R. Lit. S. "Night Photography" A. H. Blake.
Glasgow S.P.A. "Flashlight Photography." H. C. Hart.
Royal. "Screen-plate Colour Work." H. E. Corke.
Worthing C.C. "Orthochromatism." J. W. Cole.
Ashton-under-Lyne P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Nelson C.C. "Hogwarth." J. Hey.
Doncaster C.C. "Peeps into Yorkshire Scenery." F. J. Clarke.
Forest Gate C.C. "Ensyna." Houghton & Co.
Glasgow & W. of Scot. P.A. Exhibition.
Halifax C.C. "Field Days of a Sun Artist." P. Lund.
Otley & D.C. & A.S. "Control in Simple Combination Printing." H. G. Grainger.
Nelson P.S. "Russia." A. Greenwood.
Sidcup C.C. "Mounts and their Manufacture." H. Moore.
Manchester A.P.S. "Development." Dr. A. T. Lakin.

WEDNESDAY, DECEMBER 8TH.

Sale P.S. Print Criticisms.
G.E.R. Mech. Inst. Distribution of Prizes.
Paisley Phot. Inst. P.S. "Large Prints from Small Negatives." W. F. Slater.
Coventry P.S. Beginners' Demonstration.
South Suburban P.S. "Historic London." C. W. Forbes.
Borough Poly. P.S. "Platinotype Process." Platinotype Co.
Balham C.C. Members' Night.
Leicester & L.P.S. Prize Slides.
Rochdale A.P.S. "History of Photography." W. Bamford.
N. Middlesex P.S. Thames Colour Plate.
Cheltenham A.P.S. "Carbon Printing." S. A. Petcher.
Edinburgh P.S. "Later English Gothic." R. Berry.
Stockport P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Acton P.S. "Lantern Slide Making." J. Brown.
Woodford P.S. "Lantern Slide Making." W. L. F. Wastell.
Sheffield & Hallamshire P.S. "The Oil Print." J. M. Fitzclarke.
Bristol P.C. "A Flying Visit to Cornwall." W. F. Kuner.

WEDNESDAY, DECEMBER 8TH (*continued*).

Croydon C.C. "Printing in Clouds on Lantern Slides." H. P. C. Harper.
Darwen P.A. "Picture Making." W. J. Pearce.
S. Essex C.C. "Newest Printing Methods." Griffin & Co.
Horwich Inst. A.P.S. "Carbon Printing for Beginners." F. V. Coup.
Cowes C.C. "What I saw in South Africa." W. Jolliffe.
Ilford P.S. "Bromoil." C. H. Hewitt.

THURSDAY, DECEMBER 9TH.

Preston C.C. Folio Print Criticism.
Heaton & D.C.C. "Ensyna Printing Papers." F. J. Stedman.
Longton & D.P.S. "Bruges." E. Marks.
Edinburgh P.S. "Large Prints from Small Negatives." W. F. Slater.
Maidstone & Inst. C.C. "Half an Hour in Belgium." W. D. Welford.
Richmond C.C. "Discussion on Pictorial Composition."
Wimbledon & D.P.C. "Ensyna." F. Marshall.
Cardiff Windsor P.S. "Marine Photography." D. M. Lundie.
Armley & Wortley P.S. "Enlarging."
Glasgow E.P.A. "Photographic Facts and Fallacies." Burroughs-Wellcome.
Watford C.C. "Night Photography." A. H. Blake.
Liverpool A.P.A. "In and Out of Ireland." E. R. Dibdin.
Hull P.S. "Composition of Pictures." G. Marples.
Oldham P.S. "Thornton-Pickard Prize Slides." R. Hesketh.
Snow Hill C.C. "Platinum." S. C. Carding.
Brighouse P.S. *Photography and Focus* Prize Slides.
Handsworth P.S. "Home Portraiture." T. A. Sands.

FRIDAY, DECEMBER 10TH.

St. Andrews P.S. "Large Prints from Small Negatives." W. F. Slater.
Lincoln A.P.S. "Making an Enlarged Negative." B. Cox.
Mill C.C. "Autochromes."
Plymouth P.S. "Mounting and Multiple Mounting." C. F. Ford.
Salisbury C.C. "Photographic Lens."
Wakefield P.S. "Making of a Lantern Slide." G. Bingley.
Borough Poly. P.S. "Manipulation of Camera and Copying." W. H. Spare.

SATURDAY, DECEMBER 11TH.

Edinburgh P.S. "Four Years with the C.H.A." A. M. Ritchie.
Bolton C.C. "Photographer's Pocket." W. Duxbury.
Dukinfield P.S. "Snap Shots of Swiss Scenery." F. W. Parrott.

MONDAY, DECEMBER 13TH.

South London P.S. "How to Make Lantern Slides." C. H. Oakden.
Bradford P.S. Thornton-Pickard Prize Lectures. R. Hesketh.
Marylebone C.C. "Holiday Photography." Dr. F. Thompson.
Preston C.C. "Photographic Facts and Fallacies." Burroughs-Wellcome.
Equitable P.S. "Enlarging and Sepia Toning." C. Hill.
Dundee & E. of S.P.A. "Large Prints from Small Negatives." W. F. Slater.
Southampton C.C. "Camera at Home." E. T. Holding.
Bowes Park & D.P.S. "Ozobrome Process." E. H. Down.
Derby P.S. Affiliation Slides.
Leek P.S. Autotype Co.'s Demonstration. T. Bradley.
Leeds C.C. "Wensleydale." G. Thistlewaite.
Canterbury C.C. "Paget Phosphate Papers." H. Philpot.
Cleveland C.C. Discussion Night.
Walsall P.S. "Artist's Views on the Subject." R. R. Carter.
Willesden Poly. P.S. Carbon Process. W. Angold.
Cripplegate P.S. "Gum Platinum Process." M. Arbuthnot.
Scarborough P.S Members' Night.
Oxford C.C. Lecture. J. H. Gear.
Colne C.C. Lecture. W. Spivey.
Wallasey A.P.S. Visit to Exhibition.
Mansfield C.C. Exhibition.
Dukinfield P.S. Conversazione.
Erdington P.S. "Retouching." W. T. Harriott.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.

The Gevaert Gaslight Paper.

IN an earlier issue of *Photography and Focus* we referred to the introduction of the Gevaert P.O.P. upon the British market, and gave our readers some idea of the great factory whence it came. We have since then been using the Gevaert gaslight paper—a material which is very widely known and appreciated abroad under its Continental name of Ridax Papel.

There is no need to make our report a lengthy one, as we can say all that is necessary to commend the paper to our readers in a very few words. It is issued in two grades—Normal, which is always supplied unless the order distinctly specifies the other; and Special, which is more rapid, and is made for use with vigorous negatives. Both these grades are supplied in a whole series of surfaces from glossy to very rough. Our trials, which were extensive, included a great variety of the different surfaces, but the results with all were eminently satisfactory. The paper is a first-class product in every sense, and will no doubt be very largely used during the forthcoming winter.

The developer we used for black tones was practically the amidol formula issued by the makers, except that for our own convenience we made it up by dissolving one ounce of sodium sulphite crystals in fifteen ounces of water, adding an ounce and a quarter of a ten per cent. solution of potassium bromide, and finally fifteen grains of amidol. The makers state that more amidol should be added if the shadows are at all greenish, and we found it preferable both to increase the amidol and cut down the bromide. But this is a matter which the photographer may decide for himself.

The instructions give a formula containing glycin, which by increasing the exposure and diluting the developer will yield warm tones by simple development. We need not repeat the formula and directions here, as it is issued in every packet of the paper, but we may point out that it worked excellently in our hands, and is worth noting by those who would like to obtain prints of a rich brown colour without having recourse to a toning process.

The paper, in fact, proved to be all that the critical worker could desire; it developed up readily, and gave bright clean prints, free from blemishes of any kind. We kept a sharp look-out for friction marks, but were troubled with none.



TO SECRETARIES & RECORDERS.

We are at all times glad to receive reports of Society Meetings, of a practical, useful character; but cannot give space to matters of strictly local interest, or to abstracts of lectures. A pithy remark or some hint or suggestion in sufficient detail to be of service to other photographers will be welcome. Unsuitability is the only ground for exclusion, and those who have been kind enough to send us reports which have not appeared are asked to note this for their guidance in the future.

THE ENSIGN ROLL FILM Competition this month has been won by Chas. H. Coulton, of 111, Oxford Street, London, W.

AT GAMAGE'S Christmas Bazaar, at the well-known Holborn Emporium, cameras and all kinds of apparatus are fully represented. Ten pages of the profusely illustrated catalogue are occupied by photographic and lantern goods.

SOME MOST REMARKABLE ANIMAL pictures by Mr. A. Radclyffe Dugmore are reproduced in this month's "Strand Magazine." They have been obtained with a Dallmeyer telephotographic lens, which with an extension of 6in. and a focal length of 2oin. can still be used at an aperture of f/10.

LENSES. Mr. H. G. Loader reminded the Worthing Camera Club, in his lecture on this topic, that when the nearness of the subject necessitated racking the camera out a good way beyond its normal extension, as in copying same size, the f values engraved on the mount were likely to be misleading.

A PHOTOGRAPHIC EXHIBITION of South African work only has just been held by the Johannesburg Photographic Art Circle, in the Picture Gallery at Johannesburg, lent for the purpose by the Transvaal University College. No awards were offered, seventy-eight pictures, mostly from Johannesburg, being selected for hanging. The exhibition was well attended both by photographers and by the general public.

A CRITICAL REVIEW of the members' exhibition of the Manchester Amateur Photographic Society is written each year by Mr. G. E. Mellor, and published by the society. It deals with the work in detail, and ought to prove most helpful, and a great incentive to improved work. Mr. Mellor praises in particular the display of lantern slides, which he describes as the best exhibit in this department the society has ever made.

THE FERNHEAD WESLEY GUILD Photographic Society, West Kilburn, has just held an exhibition of members' work. Amongst the prizewinners were Messrs. H. B. Penn, — Elliott, H. Fisher, J. E. Hogben, G. Jacobs, and H. Dyer.

THE BOROUGH POLYTECHNIC Photographic Society has arranged a special series of elementary instruction evenings on Fridays. Particulars can be obtained from the honorary secretary, Mr. A. G. Buckham, the Polytechnic, 103, Borough Road, London, S.E.

"DEATH BY MISADVENTURE" was the verdict in the case of Mr. Edwin J. T. Webb, a solicitor, of Portsmouth, and an enthusiastic amateur photographer. Mr. Webb, while at work in his dark room, accidentally added some potassium cyanide to a glass of beer, and drank the contents.

ILFORD, LTD. The dividend for the year ended October 31st, 1909, as a ready announced, is 6%. The directors report a net profit of £33,618, which, with what was brought forward, gives £37,267 for appropriation. The ordinary general meeting will be held at Winchester House, at noon, on Tuesday, December 7th.

"THE BRITISH JOURNAL Photographic Almanac" for 1910 has made its appearance, and has duly taken its place on our shelves as one of the most useful of photographic reference books. It contains over 1,300 pages, of which about 480 are given over to an epitome of our contemporary, with a few extracts from other journals, and the rest are advertisements. The epitome is, we presume, a necessity, as there is a kind of tradition that a book should not consist entirely of advertisements. But in the case of the "B.J. Almanac," where it is generally recognised that its value depends upon the fact that it gathers within its covers a fairly complete summary of the price lists and catalogues of the trade, the tradition might well be ignored. The introduction of classified indexes of the advertisements, and other helps to ready reference, is, we believe, due to Mr. Brown, the editor, and this feature has been maintained this year, we are glad to note. The editorial article deals with lens calculations by mental arithmetic, and is interesting and clear. The page that used to deal with lens calculations in former almanacs has disappeared, and in its place we are given several pages of needlessly involved "Optical Calculations." This last is the only retrograde step in the "Almanac," and we hope will be repaired next year. A distinction should be drawn between the practical requirements of the lens user, which are few, and should be met with sufficient accuracy, but without undue elaboration or useless refinements, and theoretically perfect methods that are only useful for passing examinations. The "Almanac" is published by Messrs. Henry Greenwood and Co., 24, Wellington Street, Strand, London, W.C., price 1s. nett, or, in cloth, 1s. 6d. It is a book which every photographer, amateur or professional, should have in his possession.

THE EDINBURGH PHOTOGRAPHIC SOCIETY is holding an exhibition of members' work at its rooms at 38, Castle Street.

THE WINDSOR CAMERA CLUB has just held a very successful exhibition of members' work. The medal winners were C. C. Harrison, T. J. Cartland, A. Hobbs, and C. F. Leake.

DEATH OF MR. MUDIE THOMSON. We regret to learn of the death of Mr. J. Mudie Thomson in Cape Town. For some time Mr. Mudie Thomson had been editor of the "South African Photographic Journal," and latterly he had also been honorary secretary of the Cape Town Photographic Society.

NOCTONA CHRISTMAS POSTCARDS. Messrs. Griffin, of Kingsway, London, W.C., send us a sample of their registered Christmas card designs. In each packet of Noctona Christmas postcards they give away one of these masks, which consist of a suitable greeting or motto in opaque material, which is merely laid upon the negative, between the film and the Noctona card, in some unimportant part of the subject for choice. The result is that the lettering of the greeting appears in white on the picture, without any double printing being needed. The cards sell at 1s. per packet of eighteen, including a mask, and are issued in three grades—pearl-matt, satin, and glossy.

To Surrey Photographers.

THE Photographic Survey and Record of Surrey offers one silver plaque, one bronze plaque, and a certificate, for the three best prints of some Surrey subject suitable for its collection. The collection consists of records of antiquities, anthropology, buildings of interest, geology, natural history, passing events of local or historic importance, portraits of notable persons, old documents, rare books, prints, maps, and scenery.

Competing prints must be in carbon, platinum, or bromide, direct or enlargements, and must not exceed whole-plate in size. They must be unmounted.

All prints must, as far as possible, be accompanied by the following particulars: Subject, date of negative, compass point (viz., direction in which the camera was pointing), name and address of the competitor, brief description, and process.

The association shall have the right of retaining any print sent in for its collection, in which case the authorship of the print will be stated on the mount. The copyright will remain the property of the photographer.

The prints will be judged by the Editor of *Photography and Focus*, whose decision will be final.

Prints should be sent to the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., to arrive there not later than January 31st, 1910. The packet must be clearly marked on the outside "Surrey Record Competition."

The prints may be either from negatives now existing or from negatives taken specially for the purpose.

REPLIES TO CORRESPONDENTS.

Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received.

J. WALKER Manchester.—Many thanks for the information and the print sorely to hand.

[illegible] Bexhill.—It is not to be done at the price. The best you can do is to get the Ajax Series III 177. No. 7 which is 7½ inches by 5 inches at about 21 18s.

J. FRASER Glasgow.—Thanks for the print. We have passed it as you request, in our collection of [illegible]. The resemblance of a fish is [illegible].

A. WEST Barton-on-Humber.—We replied on page 418 in our issue for Nov. 23rd a copy of which we are informed by our publishers was duly posted to you.

J. COLLINS Sheffield.—Queen Alexandra's Photographic Studio "The Camera" can now be obtained free 1s. or post free 1s. 4d., from W. Gamage Ltd. High Holborn, London, W.C.

H. CLARK Watford.—If you cannot "go to the trouble involved in measuring out 100 minims of the [illegible] to an ounce of water," we can only suggest that you take up some other hobby; but we presume your letter is meant as a joke.

[illegible] Bedford.—The only way to find out if it is still in good condition is to try it. We should not expect to find any visible signs of deterioration before it was developed. We are glad you found our previous reply serviceable.

CLARENCE Woodingham, asks if there is any satisfactory way of marking porcelain dishes, as labels wash off in the process of cleaning. Perhaps your reader has a method: we can only suggest Brunswick black; but that, also, would soon wear off.

H.M.S. Orsay.—The best plan will be to mix up water colour with a little gum water to enable it to flow easily from the pen, and to use that. It is easier to work it with a brush; but if you object to the brush there is no reason why a pen should not be used.

C. DAY Chesterfield, and C. NEWMAN (Coalville) write complaining of delays in getting backgrounds they have ordered from "Hoyles, 58, Alfred Street Nottingham." We understand that this advertisement is a genuine one; but that the advertiser is in arrear with his orders at times.

T. MCNEILLY Ballynahinch.—If the prints were duly registered, and if the covering letter expressly stipulated that they were only sent for one particular paper (whether daily or weekly makes no difference), you have certainly grounds for an action, if they were used for some other paper.

F. J. BARCLAY (Charlton).—The only possible explanation is that either the negative or the paper moved during exposure. A very slight movement would be quite sufficient. We have known of a case in which the trouble was caused by someone walking across the room during the exposure.

BULB EXPOSURE Ilford.—The exposure marked "Bulb" or bulb is not any definite period of time, but is variable at the will of the photographer. It means that the lens remains open so long as the bulb is pressed, which may be anything from about a quarter of a second upwards. The suggestion as to counting seconds is not a new one, there are many methods.

C. N. E. (Southport).—The varnish can be removed by soaking the negative in whatever solvent was used in the varnish itself. Thus, if the varnish was a spirit varnish, the plate should be soaked in methylated spirit; if the varnish smells of pear drops, in amyl acetate; if of benzine, in benzine. It should be left a minute or two in the solvent, then gently rubbed with a tuft of cotton wool, drained, put in fresh solvent rubbed again, and drained. When dry, it can be revarnished.

D. BARRETT Battersea.—Mr. J. Walker, of Manchester writes us: "The doorway is in Prestbury Churchyard. I am afraid the photographer was not justified in giving his print the title he did, as there is no morning service held within it, but in the parish church within a few yards of it. Prestbury is a beautiful spot for the camera. Close to the Norman church there is an ancient cross marking the spot where Christianity was supposed to have been introduced first into the district."

HARVEY SHAW (Wrexham).—The Halifax Photographic Co., Halifax, offer to supply what you require.

W.R.W.H. (Prestou).—Damp would not be likely to cause it, by itself; but damp would certainly facilitate it, in the presence of impure air.

G. B. (Bayswater).—The formula is quite correct, and we can form no idea where you have gone wrong, unless you have got hold of some other chemical by mistake.

HASTINGS (Bedford).—As you give no indication of the nature of your difficulty, we do not see how we can help you. Please be specific; we cannot give general information in this column.

APLANAT (Ludlow).—It is probable that the lens is what they describe it to be; but we should be very much surprised to learn that they test all or even any of those which pass through their hands.

WILLIE (Worsley).—We have not tested it; but we should at least expect it to be as good as the other you name. Of the two we should prefer it, judging by the reports that have reached us.

D. A. (Torquay).—You will have to use the stop with the largest opening, in taking snap shots at this time of the year; and even then we expect in many cases you will find that the negatives are under-exposed.

COMPETITOR (Kings Lynn).—There is no limit to the number of dolls which may figure in the group; but mere number is not a merit, and it is quite possible that the difficulties will be increased by increasing the number.

ENGINEER (Patna, India).—Distilled water is not needed for any of the ordinary processes of photography, whether formulæ prescribe it or not. Water that is good enough to drink is good enough for development, toning, washing, etc.

DUTCH (Fifield) asks where small Dutch dolls with jointed limbs can be obtained. A.—The addresses given in *Photography* a couple of years ago were Ralstons, 22, Church Street, Portsmouth, and The Doll's Hospital, London Road, near Baker Street, Brighton.

F. B. SMITH (Plumstead).—There are no restrictions other than those laid down in the rules. If your work complies with those rules it is eligible, no matter what the dolls may be. We are sorry that at the present moment we have no further information on the other matter.

FIXED (Catford).—The hisulphite lye can be obtained from Johnson and Sons, Cross Street, Finsbury, London, E.C. It is a strong and not very pure solution of sodium bisulphite, a by-product in certain manufactures. Its impurity is no drawback to its use for photographic purposes.

D. S. THOMPSON (Stockport).—The face is dark because the negative is suffering from under exposure. It is a common defect. We have pointed out over and over again that we cannot send individual prints to "The Bandit." He has the whole of the unsuccessful prints in the Beginners' and Special Subject Competitions, and makes his own choice. The rules as to criticising prints are to be found above.

MRS. WARD (Kurseong, India).—Print received. We are unable to send individual prints to "The Bandit," as we have announced from time to time; but are willing to criticise work on conditions stated above. The print sent is of an agreeable subject, but the negative evidently suffers from both under-exposure and over-development, hence the extreme blackness of the shadows and harshness of the highlights.

DURLSTON (Newport).—The cause of the spots is beyond us. Some chemical impurity in the developer we imagine; but it is hard to say. The usual cause is airbells adhering to the film when the developer is first poured on; but these are generally perfectly circular, and yours are not. The only remedy is to block them out with some opaque pigment on the negative, so that they print white, and then to spot the prints. We should be tempted to throw away the stock solutions and make up fresh. Can they be due to fragments of crystals adhering to the neck of one of the bottles?

VIKING (South Hampstead).—Retouching would certainly disqualify a print in the special subject competition, if it were detected.

PORTRAIT (Brixton).—The phrase conveys no meaning to us at all; it is evidently a fancy term coined, in all probability, by the user of it.

T. BRITTAIN (Johannesburg).—The print has duly been entered; but in future please note the rules, which we publish at least once a month.

T. TILLMANN (Chelsea).—J. E. Lockyer, 244, Evelyn Street, Deptford, London, S.E., sells a preparation for the purpose of renovating camera bellows, at 6d. or 1s. per bottle.

J. CLARK (Aberystwyth).—We publish the whole of the rules of our competitions at least once every month; if you do not infringe any of these your work, of course, will be eligible.

A. W. GRINSTEAN (Eastbourne).—We shall be very glad to help you if you can indicate the lines on which we can be of service. We try to keep our articles as helpful to beginners as we can, and are almost afraid we were too much so at times.

DARK ROOM (Bramhall).—No one, so far as we are aware, makes a practice of selling glass with binding strips already attached to it, for making passe-partouts, but no doubt a picture framer would do it for you. Probably Raines and Co., South Ealing, London, W., would quote.

TEDDY BEAR (West Kensington Park).—Certainly the principal part in the competition prints must be played by "human" dolls. Animals such as teddy bears are hardly dolls in the sense implied, but they might be used as accessories.

P. TALLIN (Plymouth).—The "turning to water" is a sign of decomposition, which the spirit and oil of cloves should prevent. We do not know what is wrong in your case; but we are bound to say that our own preference is for the freshly made mountant in all cases, except when one of the commercial preparations is used.

COLOUR-SERGT (Lancaster).—The usual method is to give it a soak of an hour or more in a five per cent. solution of alum, and then, after washing it for half an hour in running water, to bleach it in mercuric chloride and blacken it in ammonia, precisely as a negative is intensified. All methods which involve rewetting of the print are risky.

PAX (Ramsgate).—Either film or glass positives could be used as window transparencies, if backed up with ground glass or some similar material to prevent details of the view beyond from interfering with the effect. Stripped films *could* be used; but it would be much better not to strip them, as in the stripped form we should anticipate much trouble from curling and cockling. Probably prints on paper, treated with wax to make it translucent, would be best of all; but they would have to be made much darker than they would be if they were to be displayed in the ordinary way.

E. IBBETSON (Meersbrook).—A good blue-black tone on gaslight paper is generally got with metol-hydrokinone. If yours are brown you are either over-exposing, or have too much bromide in the developer, perhaps both. To get a good colour, development must be quick, and must seem almost to stop when the picture is fully out. If your prints do not do so something is wrong. We hand all unsuccessful prints to "The Bandit," who makes his own selection; but we can give him no messages about individual prints, nor do we think he is in the habit of doing what you seem to fear.

WEAVER (Heywood).—It is hardly a matter of quantities, as it is done by rule of thumb. If you take a little gelatine, a dram will be quite enough, soak it in cold water for an hour or two, then squeeze it out, and add about its own bulk of hot water, you will have a solution which may be poured on to the glass, which must be warmed and carefully levelled. As soon as it is set, it may be put away to dry. If two glasses are thus made and one stained by immersing it in a solution of napthol yellow and the other in methyl violet, you will have a deep red screen of an effective kind. It is cheaper and less trouble to buy a sheet or two of ruby paper, and to enclose them, with or without oiling to make them translucent, between two pieces of glass.

How Much Do You Know?

The questions asked at the examination held by the City and Guilds Institute.

ORDINARY GRADE.

Eight questions only to be attempted.

1. The following formulæ for development, accompanying each box of plates sent out by a popular maker, are a fair sample of the usual instructions, with British weights and measures. Would you suggest any improvement, and, if so, what, in the mode of stating the proportions of the ingredients? (*a*) Taking 1 oz. of the first-named complete developer, what would it contain? (*b*) What are the contents of an ounce of the second "for softer negatives"? (30 marks.)

—Avoirdupois weight. Pyro Developer: To those who prefer a vigorous negative the following is recommended:

Solution 1.		Solution 2.	
Pyro	1 oz.	Sodium carbonate	8 ozs.
Potassium bromide	50 grs.	Water to make	80 ozs.
Pot. metabisulphite	50 grs.		
Sodium sulphite	8 ozs.	Use equal parts of Solutions 1 and 2.	
Water to make	80 ozs.		

For softer negatives the following may be used:

A.		B.	
Water	16 ozs.	Water	16 ozs.
Sodium sulphite (crys.)	1 oz.	Sodium sulphite (crys.)	4 ozs.
Pyro	1 oz.	C.	
Citric acid	20 grs.	Water	16 ozs.
		Sod. carbonate (crys.)	4 ozs.

To develop, take A 1 oz., B 1 oz., C 1 oz., water 8 ozs.

2. Given a batch of negatives thoroughly washed and ready to be dried, how would you proceed to dry them, (*a*) twelve hours being allowed, (*b*) half-hour only being allowed? In either case, what troubles might possibly occur, and how would you remedy them?



A Good Joke. *By A. W. H. Slaughter.*
From the Advanced Workers' Competition just closed.

(3.) What strength would you recommend for a "hypo" fixing solution for negatives? How would you decide when to remove the plate from the solution? What method would you adopt for freeing it from the "hypo"? (25.)

4. Of what is the film of an average dry plate of the present day composed? (40.)

5. Explain the action of the developer upon an exposed gelatine dry plate. (40.)

6. For use in various departments of photographic work, dishes of many kinds of material and colour are purchasable; state what material or materials and what colour or colours you would prefer, and give your reasons for such preference. (30.)

7. If the inside of the bellows of a camera had lost its original dead black appearance and become grey and worn-looking, would any ill effect be produced when using it; if so, how would you provide against it? In re-blacking the interior of a dark slide, how would you proceed, and what materials would you employ? (35.)

8. Having a whole-plate (8½in. by 6½in.) camera capable of extending to 18in., what is the extreme size you could, with it, enlarge a head 1½in. from chin to top of head when using (*a*) an 8in. focus lens and (*b*) a 5in. focus lens? (40.)

9. In the case of a gelatine dry-plate negative badly cracked, but with the film itself not ruptured, how would you transfer the film to another unbroken glass plate? What risks would occur and how would you combat them? (35.)

10. Some makers advertise lenses as specially valuable on account of their so-called "depth of focus." Have you found, in your own experience, such claim to be well founded? On what does this "depth" depend? (30.)

11. Give formulæ for the composition of a developer and a clearing solution for platinotype printing. (30.)

12. How would the resulting prints on platinotype paper be affected if the paper had been sufficiently protected from the atmosphere for some weeks? (30.)

13. Used in a studio 20ft. long, what is the longest focus a lens could have so that a full-length standing figure 6ft. high could be taken for a cabinet size (5½in. by 4in.) picture, leaving ¾in. space above his head and ½in. below his feet on the print? (40.)

HONOURS GRADE.

Seven questions only to be attempted.

1. Give an account of the chemical theory of the formation of the photographic image. State any objections to it which appeal to you. (60 marks.)

2. A lens is made of glass having a refractive index of 1.52. It is equi-convex and has a focus of 12in. What is the radius of curvature of the two surfaces? (40.)

3. What are the essential principles of sensitometers for three-colour work? (50.)

4. You are given colour screens which are not perfectly plane. By preference where should such screens be placed? Give your reasons. (30.)

5. A good lantern slide has to be made by contact on a fairly rapid lantern plate from a very thin negative. Describe how you would set about making it. (50.)

6. Describe Hurter and Driffield's method of ascertaining the comparative rapidities of plates. Point out anything which militates against the absolute theoretical accuracy of the method. (60.)

7. Name any metallic salts (other than silver salts) which are sensitive to light. (30.)

8. Discuss the advantages or disadvantages of having an instantaneous shutter between the two components of a doublet lens. (40.)

9. Describe the single transfer carbon printing process. (30.)

10. State what you know about flashlight photography as regards time of exposure and ingredients employed to produce the flash. (40.)

11. Give the formula for an acid fixing bath and state any advantages it possesses over the ordinary hyposulphite bath. (30.)

12. Describe some plan by which you can use with safety plates that are liable to frill. (40.)

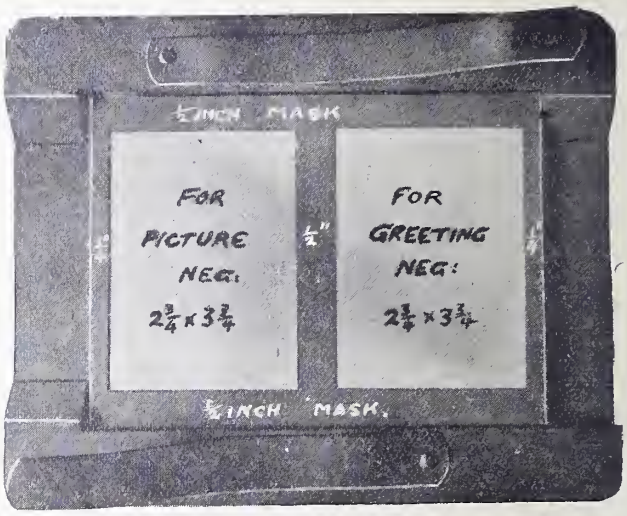
CHRISTMAS CARDS.

BY U. B. JOHNSON. *Special to "Photography and Focus."*

THOSE who feel that the commercial sensitised postcard is not quite as elaborate as they would wish may be glad to note the following method, by which a folded card with a photograph on one side and a suitable inscription on the other may be made quite simply, each card needing only a single exposure in the printing frame.

The first thing is to settle upon the inscription, and when done it should be written as carefully as possible on a piece of white paper, $3\frac{3}{4}$in. × $2\frac{3}{4}$in. It may be done as plainly or as elaborately as the photographer wishes; in either case particular attention should be given to the spacing. A quarter-plate size piece of clean celluloid film, which may be an old negative cleaned off, is then laid on the white paper, and the inscription is carefully traced with a fine pen and Indian ink or diluted photopake. If there is any difficulty in getting the celluloid to take the ink, the surface should be slightly roughened by rubbing it over with tripoli or very finely powdered emery.

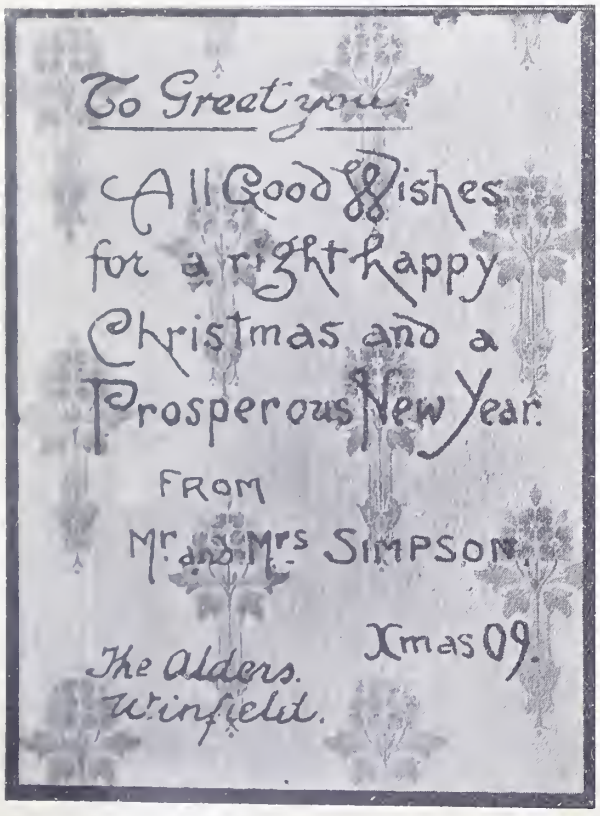
When the writing is dry, a piece of clean glass is placed in the dark slide, the celluloid is laid on that, and then a sensitive plate, with its film next the celluloid, and the slide is closed. A piece of wallpaper with a smallish design of a suitable character is fastened up, and is then photographed on the plate, through the celluloid bearing the inscription. In focussing, allowance should be made for the plain glass in the dark slide, racking the back nearer to the lens by the thickness of the glass, after a sharp focus has been obtained. On developing, the inscription will appear in clear glass letters on a regular pattern from the wallpaper, which may be made in this way to give a very pleasant effect, with none of the bare look which the letters on a plain white ground would possess.



A half-plate printing frame, provided with a half-plate glass, is next taken, and a piece of black paper, also half-plate size, is cut out, as shown in the illustration, to act as a mask, and to provide a margin of a quarter of an inch on each side, and ½in. margins top, bottom, and down the centre. This will leave two openings, each $3\frac{3}{4}$ × $2\frac{3}{4}$. The mask is fastened to the clear glass, placing the negative with the inscription on the right-hand side of the frame, fixing it carefully with strips of cardboard the same thickness as its glass. The left-hand half of the frame is then ready for any negative selected for Christmas card purposes.

The paper used for printing should be of half-plate size, and after the print is made it should be folded down the centre. It may be used as it is, or may be embellished further by enclosing it in a piece of nature paper a little larger than the print, and pasted just down the crease. A tinted gaslight paper gives a nice effect. In cases where the greeting negative is of a density very different from that of the other negative, it is quite easy to cover half the frame with a piece of card during part of the exposure.

Many ways of adding further finish to the card will suggest themselves, and help to give variety.





From the Advanced Workers' Competition just closed.

Winter Sports and the Camera.

BY B. KENT. Special to "Photography & Focus."

WHEN the afternoon boat train leaves Charing Cross for Folkestone it carries many cameras with it. In summer this was natural enough—the *voyageurs* wanted to bring home snap shots of their August in Austria, or their September in Switzerland, or their July in the Jura (how alliterative I am getting, to be sure!)—but nowadays there are more cameras in that boat train any day between Christmas and March than in the alleged summer months. For the holiday-making section of society has discovered that not only are the Alps a pleasanter playground in winter than in summer, but a far more photographic one, too. Sunlit snow is ever so much easier to get nice films out of than sunlit rocks and hay-meadows. Moreover, the snow is infinitely more often sunlit than the hay. In summer there is rain, thunder, lowering skies of grey; in winter there is either a heaven of blue or a snow-storm, and in either photography is feasible. You have to be a very wild and weird impressionist indeed to prefer photographing in rain to photographing amongst the snow-flakes.

Of course there is a due proportion of fine weather in Switzerland in summer; far be it from me to insinuate the contrary. But—after a good deal of experience—I am inclined to risk the assertion that there is a positively undue proportion of fine weather in winter. And fine winter weather, in Switzerland, is the photographer's dream: it is finer than the finest which England can produce: it has a glittering quality, an intensity, which we never know. I am not one to deny the loveliness of Britain's mists, and their pictorial value; but, for a change, the piercing transparency of Switzerland's winter atmosphere is tremendously stimulating. Besides, after all, the mist of falling snow which curtains the country for twenty-four hours once a fortnight or so, and exquisitely renews the carpet of white, has a charm too, if different from the pearly fogs or pea-soups of Albion—and is more actinic into the bargain.



A Cart Track Toboggan Run.



The Ski Runner.

At all events, some thousands of cameras go Alpwards every winter, and some millions of exposed films return. Which is quite as it should be, both from photography's standpoint and from the film-makers'. A month's snap-shotting (to call it by no more complimentary name) in the winter-garbed Alps is not only the pleasantest of experiences; it is uncommonly good training. Its very newness is invigorating. One returns refreshed not only in body, but in photographic outlook.

A great deal has been written about the difficulty of photographing snow. I can only say that it

seems to me that the difficulty lies not in photographing snow, but in photographing the things whose background is snow. When you snap shot a tobogganner descending a Villars hillside, you really snap shot the snow which he does not mask. It is like the old original "living picture" dodge, used long before the invention of the kinematograph. A long wall was arranged immediately behind a trotting-track, and the wall was painted a brilliant white. Opposite the wall were placed a row of cameras; and a horse, trotting along the track, automatically caused each camera to snap it as it passed. The result was a series of silhouettes of the horse's outline. These were mounted in sequence and, viewed in a thaumotrope (or whatever the device was called), gave a satisfactory impression of movement. But what had actually been photographed, as far as the plate was concerned, was not the horse but the white-painted wall. So with our tobogganner. We have produced an admirable and fully-exposed picture of the snow which surrounds him. Of him we have got little more than a silhouette. So bad is this in some cases that, examining the thing judiciously and impartially, we find that the tobogganner's presence is only realisable by reason of the fact that the snow he has cut off from the camera's vision is of human outline. Were it, by some chance, the shape of a cow or rock, we should mistake it for a cow or a rock—there is little or no face, or other human detail, to save us from the error.

As a matter of fact, Alpine sportsmen have, by great good fortune, latterly taken to wearing "sweaters," usually made of white wool, and as far as the photographer is concerned this fashion is most useful. Still, if the snow and the sweater are the only two properly-exposed parts of the negative, it is surely not perfect. Great though the glare is, the eye sees more than that. It sees the face and hands, as flesh, flesh-toned. Too often in the photograph they are negroid. To a great extent this can be remedied by the use of fast plates and what I call focal-plane development; that is, the extraordinarily careful development resorted to by skilful focal-plane workers. Mr. Ballance, who practises winter-sport photography in the Engadin, is the only photographer I know of who can take a bob-sleigh travelling at fifty miles an hour, full size on a half-plate, and can get out all details in faces and figures, while keeping the snowy quality of the snow. His work—which you will see for sale all over Switzerland—is worthy of the closest study. What one man can do, others can do. But for the ordinary amateur, armed with Kodak and films, a lens working at f/8 and a shutter at a fiftieth of a second at fastest, good sporting photography in Switzerland resolves itself into this—*time exposures*. There is nothing for it, believe me, but to "pose" the tobogganner, or ski-er, or whatever he is; take him with the slowest speed; nay, take him, if one has a tripod, with a bulb exposure and with an iso. screen on the lens.

Personally I have done a great deal of slow instantaneous photography in Switzerland with a K1 screen on my lens, watching the subject for a moment of comparative motionlessness. The results are quite visibly superior to screenless ones, especially in the subtle tones of the snow and in the renderings of faces with a background of snow. It is not possible, even without a screen, to take tobogganners going full pace down a run except with a first-class lens and shutter; but those who do not possess these luxuries can turn out excellent pictures by simply taking the racers at the top of the run at the instant before starting, and the result is just as good, and not in the least posed-looking. The same applies to ski-ing photographs. Skating is less easy. Curling, now so popular all over Switzerland, is the easiest of the lot, provided the right moment for pressing the button has been chosen; it is a game which has frequent moments of tense motionlessness.

At both Montana and Villars, where I have latterly done most of my winter-sport photography, there is a splendid long day of sunshine—much longer than many of the other sporting resorts can boast, whatever the advertisements may say. And these two resorts are pretty far south, which to my mind has a perceptible effect on the climate and light,



Curling.—"The Skip."

as well as on the character of the scenery. For landscapists Villars is the finer hunting ground of the two; but the very quality which makes for ease in close-up photography (the photography of individual tobogganners, curlers, and so on) is of dubious value for big landscapes. The air is too transparent, unless snow is falling. The distant mountain slopes are too near and glaring. For this reason I prefer to recommend the beginner, at any rate, to study what comes first to his hand, namely, the sporting scenes. For these, a brilliant and transparent atmosphere is just what is wanted; for big ranges of landscape it is not what is wanted. At least if he tries landscape, let him stick to close-up "bits." If he tries distant views he will be disappointed, unless he is blessed with long-focus lenses, a tripod, a deep screen, and a deal of patience in searching out the ideal composition.

While the "season" for the Swiss winter resorts runs on, as I have said, from Christmas till March, my own experience is that February is the finest time, as far as weather goes. About Christmas and about the third week in January there is often a bad break in the weather—or a good break when one looks back on it from February; for these breaks mean a deep fresh layer of snow, of perfect purity and unsullied by ski-marks or sleigh tracks. It is only fair to repeat, in conclusion, that in a snowstorm in Switzerland one can photograph nearly always, when a similar storm—which would be rain—in England renders photography impossible.

Photographic Calendars.

By "Beta." Special to "Photography and Focus."



ALMOST the dozens of acquaintances to whom one wants to send greetings for Christmas and the New Year there are always the more intimate friends who will expect, we feel, something more than the mere reminder a greeting card forms. One does not want to send anything in the way of a present, perhaps, yet the Christmas and New Year's card—forgotten and useless a week after its receipt—somehow seems inadequate.

In such cases what can be more suitable than the artistic and at the same time highly utilitarian calendar? Of late years this form of New Year's greeting is becoming more and more popular, as is shown by the great variety of such souvenirs which every stationer is showing just now. Undoubtedly the great vogue of the photographic Christmas card is due to the very natural desire of the amateur photographer to turn his hobby to practical account, and at the same time to send his friends the more personal, and therefore, to them, the more interesting reminder which is expressed by an example of one's own work.

Much the same reasons should induce the photographer to undertake the production of photographic calendars, which from their utility alone add to the value of the greeting, and ensure a far more lasting remembrance of the sender. It is proposed in these notes to show how such calendars can be made by any amateur photographer who can mount and title his pictures tastefully.

With both Christmas cards and calendars the most important point, where a considerable number have to be sent out, is the ease and inexpensiveness of duplication—a point which will therefore receive special attention here. There are such a great variety of forms in which an effective calendar can be produced that it will only be possible to describe and illustrate a few, which must serve as suggestions for following out one's own ideas. The possibilities range from the single card calendar, embracing the whole year, to that which has a card and picture for each month. We will deal with the former first.

In considering the picture to be employed as the centre piece of this, it at once becomes evident how wide a choice of subject one has in the production of the calendar as distinct from the Christmas card. The latter should, properly, represent a winter or snow scene, whereas for a calendar, in use throughout the year, the whole of one's landscape negatives at least are available. A suitable negative, which should preferably have some claims to decorative quality, interest, or beauty of subject, is placed in a printing frame sufficiently large to take a sheet of paper double or treble the size of the actual picture. A mask should be cut to cover entirely the whole of the sheet of paper not occupied by the picture, which is then printed in the usual way. Another mask is now made just large enough to cover the view and to leave a narrow margin all round. Masks are also cut of any desired shape to protect the space where the word "Calendar" and the date card are to be put in. These masks are adjusted in their correct positions, and the paper is then again exposed to the light. The result is a



picture with a white margin and spaces for the name and date card on a tinted ground, which will always tone exactly with the picture itself.

The printing process can, of course, be whatever the photographer prefers, but I might point out here that it must be borne in mind that this is the original calendar, which it will be desired to duplicate extensively. For this reason, I always print in neat gaslight or bromide paper, as this surface is much easier to work upon afterwards with either pen or pencil.

By the way, a most charming and artistic effect is secured by printing on bromide and developing with a diluted solution to avoid heavy shadows, the whole of the afterwork of lettering, figuring, etc., being carried out in ordinary blacklead. After copying in the camera for duplication, a delicate blend of greys is the ultimate effect of this simple method of working.

As regards lettering and figuring, ideas for the title can be either copied from the commercial article or evolved by the worker himself. The date card should be very carefully written. Each figure must be made as clear as possible, remembering that a mistake will make the calendar useless for practical purposes, and the maker ridiculous.

The writer advises one of two courses in this matter, for those who are not adepts at small artistic figuring. Either the date card should be cut from a printed calendar and stuck on the space left, and the picture then copied in the camera, or the photographer should do the whole thing on a much larger scale, effecting the desired reduction afterwards.

The one-card calendar is finished off by mounting on a good stout card, which is either supported in easel fashion by a strut at the back, or a hanger of silk or ribbon is provided at the top.

Much the same methods of working are employed for the more ambitious two, four, six, or twelve-card calendars, except that, of course, the various months are equally divided on the respective cards. In these cases, too, it is desirable to make an attempt to divide the card into seasons by the employment of photographs the subjects of which have been selected as being appropriate to the time of year recorded on each card.

"The Woodland Calendar" of four cards, for instance, would represent the four seasons in woodland views; the spring and summer card might be printed (or if bromide paper is employed, toned) to suitable shades. Flower subjects can be used to represent effectively the seasons of the year; for instance, daffodils for spring, chrysanthemums for autumn,



and so on. A poetical title or couplet artistically written is a pretty addition to the multi-card calendar. Figure subjects are available for this work also.

With the few hints on the making of photographic calendars here given, I am sure that *Photography and Focus* readers can follow out ideas of their own for the production of what is undoubtedly a most highly appreciated remembrance for one's friends at the end of the year.

The examples which illustrate these notes were each duplicated by the writer in the camera a great many times, but for purposes of half-tone illustration it has been thought better to use the originals.

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Printing Out and Toning Gravura Paper.

By DUM-DUM. Special to "Photography and Focus."

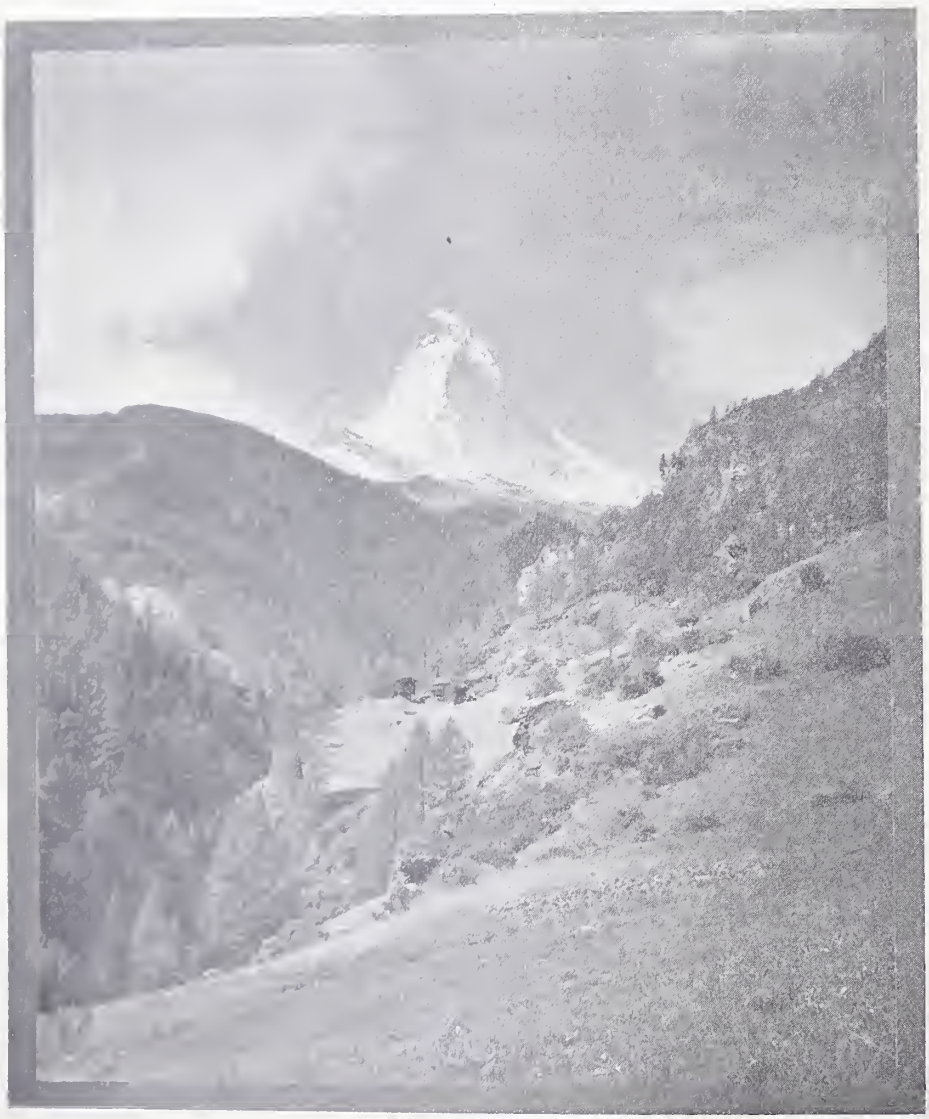
THE Gravura paper of the Paget Company is intended to be used in the same manner as other gaslight papers, and by prolonging the exposures usual for obtaining good black prints, and also by suitably diluting and restraining the developer in the way explained in the instructions supplied with the packets, prints varying in colour from sepia, through shades of red to browns, can be readily obtained. It is not perhaps known, however, that the paper is capable of being printed out and toned in precisely the same manner as the well-known gelatino-chloride printing-out papers, and therefore the following account of the experiences of an amateur may be interesting and instructive to other amateurs.

A number of packets of large size sheets of Gravura paper were found after being forgotten for many years; they were hopelessly affected by the vagaries of the climate of Lower Bengal, and had probably also deteriorated through damp, although they were not stained in any way. Prolonged exposures to lamp or to weak daylight, followed by development with the usual developer, also with the addition of the restrainer, all failed to yield any results, showing that the paper had been quite ruined. It was then decided to print-out on the paper just as with P.O.P. After a trial the printing was carried out in direct sunlight, with a sheet or two of tissue paper placed over the printing frame, as it was ascertained that printing in the shade was extremely slow.

Used in this way, negatives of average density were found to give prints very strong in contrasts, and the prints with the best gradation were obtained from the weakly developed negatives, such as are usually considered the most suitable for printing on bromide papers. With hard negatives the prints have little or no details in the high lights; whereas soft negatives were found to admit of prints of great vigour being obtained, with plenty of details in the lighter parts of the prints.

After several trials it was seen that prints in which the high lights were kept clear, or not allowed to darken until the shadow details were inclined to bronze over, were the most successful, as the prints lose so very little in the subsequent operations of toning and fixing.

During the printing the paper colours pink and gradually becomes reddish and then brown; so that before it is removed from the printing frame it should be of a rich brown appearance in the darker parts with a reddish tint in the brightest portions, and should have about the same appearance as prints on P.O.P., toned with gold and ammonium sulphocyanide. The prints can be kept for a few days until a number are ready for toning together.



THE MONARCH OF THE GLEN. BY DR. HUGH ROGER-SMITH.

From the Advanced Workers' Competition just closed.

If such prints on Gravura paper are fixed without being toned, they lose much in density, assume a sickly pale yellow colour, and the results are not pleasing. Prints toned with gold and then fixed in the plain hypo bath of the strength that is recommended by the makers, give good bright prints with nice contrasts, clear high lights, plenty of details in the shadows, and a good range of tone very similar to that obtainable with the ordinary print-out papers. The colours, however, vary considerably according to the bath that is used for the gold toning. Toning with borax makes the finished prints of a brick-red colour—very suitable for some subjects, but unsuitable for portraits; but the best prints are those that are toned with ammonium sulphocyanide without acetate of lead. The bath usually used with sulphocyanide can with advantage have the proportion of the latter chemical reduced by one-half, as the full strength tones very rapidly, and unless the worker can keep the prints moving quickly they are apt to tone rather unevenly, and perhaps get spoiled. With successful toning the prints acquire a rich deep bluish purple colour that is very pleasing, and quite a pleasant change from the usual colours produced on the ordinary print-out papers. With the addition of lead in the toning bath, the prints go of a slaty-blue colour, somewhat like an over-toned chloride print from the sulphocyanide bath.

There is but little loss of strength during the toning and fixing operations, and for the latter the strength should be as recommended for the paper by the makers. The prints must be washed for ten minutes before being placed in the toning bath; again from five to ten minutes after toning and before fixing; and finally washed for one hour as with all bromide and chloride papers. It is important that the prints are kept moving both in the toning and fixing baths, as otherwise the solutions do not reach all parts equally, and brownish stains may appear through uneven action in the fixing bath. The alum bath can be dispensed with, as Gravura paper does not frill unless very roughly used. The finished prints seem to keep well, and in appearance are glossy, even without being subjected to the usual enamelling and glazing processes that can be practised with gelatine papers.

To sum up, the following course is to be recommended:

The Gravura paper can be placed in the printing frame in diffused daylight in precisely the same way as the ordinary print-out papers. The prints lose very slightly in toning and fixing, so must not be printed too deeply. Printing should be done in direct sunlight if printing is very slow, and each print should be washed for ten minutes in several changes of water before toning.

The following toning bath may be used, toning until no traces of the red image are visible through the backs of the prints by transmitted light:

Ammonium sulphocyanide (10% solution)	15	minims
Gold chloride (15 grains in 15 drams) ...	30	minims
Water to make	7½	ounces

This quantity is sufficient for twelve quarter-plate or six half-plate prints. After toning, the prints are washed for about ten minutes, fixed for ten minutes in a plain hypo bath of three ounces to the pint, and washed as usual.



THANKS. BY WALTER S. G. PROCTOR.

From the Advanced Workers' Competition just closed.



WILD PARSNIP. BY R. W. HOGBEN.

From the Advanced Workers' Competition just closed.

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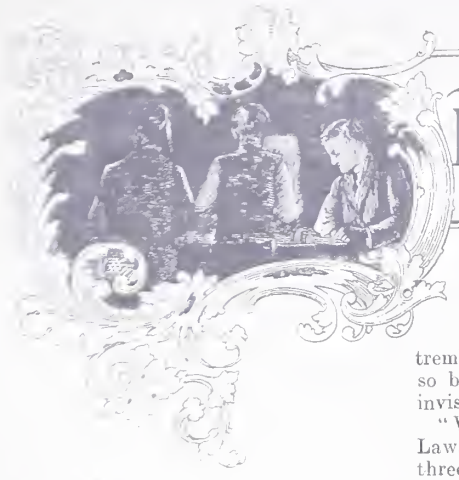
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DARK ROOM DIALOGUES

THE enlarger that Lawson purchased provided a good deal of occupation for his evenings; and more than once he had to call in the help of his two friends to get him out of the difficulties in which its vagaries involved him. The very first night he got it working there was a problem awaiting them when they reached his dark room.

The enlarger was all fixed up for work, the incandescent gas burner in it was brilliant with its new mantle, a sheet of white paper occupied the easel, and one of Lawson's choicest negatives was in the carrier.

"I'm glad you've come," was his greeting. "There is something here which I can't master."

"What's the trouble?" enquired Oliver. "The picture looks all right. You have got a fine light there, but if you are going to use that R.R. lens on the enlarger it is clear you will have to stop it down a good deal; the margins are decidedly blurry. All those lenses had a very round field."

"It's not that," replied his friend. "Look here"; and he drew the carrier out of the lantern, so as to let the light fall uninterruptedly on the screen, where it was seen very plainly to be crossed by bands of shadow, at right angles to each other, forming a regular network.

"Do you see those bands?" he asked. "How am I to get rid of them? I have tried stopping down the lens, and altering the position of the light to the condenser; but stopping down only makes them worse, and the other does no good."

"It is the image of the mantle," said Oliver. "You need not worry; it won't show on the enlargements. At least it never does on mine, although I can generally see it on the screen when I take the negative out."

"But how do you manage to prevent it from showing?"

"I don't prevent it. It simply does not show. I have heard it suggested that the mantle trembles in the draught of the flame, and so blurs itself that its pattern is quite invisible on the enlargement."

"Well, mine doesn't tremble," said Lawson, "for look here. These are three exposures I have made this evening, and they are all spoiled by the marks. You can trace them over the whole picture."

"I'm afraid I can't help you, then," Oliver replied. "I certainly never got anything like that."

"The trouble is common enough," said the sunburnt man, who had hitherto listened in silence. "I had it fifty times worse in my enlarger with the Nernst lamp. I got an image of the filament of the lamp on every enlargement I did until I stopped it once for all."

"And how did you do that?" enquired Lawson eagerly.

"By the very simple dodge of putting a piece of ground-glass between the light and the condenser."

"Doesn't that interfere with the illumination?" asked Oliver.

"I have no doubt it makes the exposures a little longer than they otherwise would be; in fact, it must do so. But it does no other harm, and, quite apart from remedying the particular trouble that made me use it, it certainly evens up the illumination, and generally improves things. I should never think of working without it now."

"Whereabouts do you put it?" asked Lawson.

"Well, in my case," said his friend, "I have it about a couple of inches or less from the Nernst burner, but with your incandescent gas burner I think you would find it more convenient to put it near the condenser. It must not be between the condenser and the slide, but between the condenser and the light."

"I will get a piece on Monday," said Lawson. "I am only sorry it is Saturday night, or I would get it now, as I particularly want to have an enlargement done for to-morrow; we have got some friends coming who are interested in this picture."

"Why wait?" said the sunburnt man. "It is easy enough to make a piece of ground glass."

"I wish you would show me how?"

"Easily done. Have you got any pieces of plain glass big enough to cut a circle out of? I know you have got a glass-cutter. That and some knife powder will do all we want."

The materials were provided, and the sunburnt man proceeded to cut a circular piece of glass the required size,



THE SILENT POOL. BY C. O. F. BEDDOWS.

Awarded a Certificate in the Special Subject Competition just closed.

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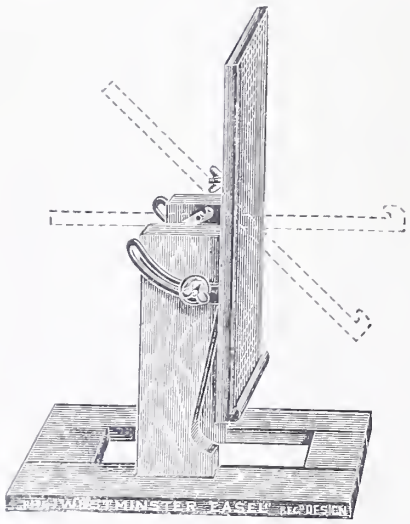
a bottle as a guide. Two or ... the pieces broke in the ... but many a cut was made ... started. With the end of ... the track was led round ... and a smooth circle of glass ... perseverance. A piece of ... was laid flat on a bed of news ... sifted over with knife powder, ... with water, and the circle ... down upon it and the two steadily ... together. From time to time ... was rinsed the circle of ... under the tap to see how the ... was progressing, and then, with a little more of the knife powder, went on with the operation. When finally there were only one or two small spots on the glass that were not ground he put the circle on the newspaper, face upwards, sprinkled powder on the spots, and taking a little piece of glass gave the deficient places a local grinding. Within five minutes of starting to grind the disc he washed under the tap and passed to Lawson a finely and evenly ground circle.

"There," said he, as he cleared up the paper and mess made by the grinding, "if you slip that into the enlarger, just in front of the condenser, I don't think you will have any more trouble."

"I'm very much obliged to you," said Lawson, as he did what he was bidden. "I have read of that way of making ground glass, but I never tried it myself. There is no doubt about it having done the trick," he continued, as he turned on the gas again, and showed a perfectly even disc of light upon the easel. "Now, if you fellows don't mind stopping up here with me for a little longer, I will just get one enlargement made, and we can then go and get some supper."

The Westminster Enlarging Easel.

AMONGST the conveniences which have been introduced recently for the benefit of amateurs who do enlarging, the very serviceable and well-designed easel which we illustrate on this page deserves a few words of praise. It is the registered design of the Westminster Photographic Exchange, Ltd., of 119, Victoria Street, and 111, Oxford Street, London, and embodies quite a number of good ideas. The price of the easel, complete, is one guinea.



The baseboard is made long in proportion to its width, to allow of it sliding easily and without side twist between guides when these are provided on the enlarging bench. The guides are not, of course, a necessity, and it can be used on any table, its rubber feet causing it to stand firmly wherever placed. The baseboard carries two uprights to which the easel itself is pivoted. The easel is built up to prevent any risk of warping, and is carried in such a way as to allow of every necessary movement. While still remaining vertical, it can be raised or lowered as required, and can be rotated on its centre to any extent, even to a complete revolution. It can in a moment be clamped in any selected position. Besides these movements the table can be tilted, with its top either towards or away from the enlarger, for the correction of any distortion, and it may be brought into a horizontal position, as indicated by the dotted lines.

There are several advantages obtainable from these motions. The first and greatest is that the adjustment of the picture on the easel is made without movement of the enlarger—always to be preferred when it can be done conveniently. Then, the picture being arranged, the easel may be swung into the horizontal position, in which it stands quite firmly, and the paper fastened by the drawing pins being pushed downwards, the easel being then swung back into its original position. This does away entirely with the risk of shifting the position of the easel when pushing the drawing pins into it. In its horizontal or almost horizontal positions, it will serve either as a table for still-life work or as a tilting table for a lantern. The face of the easel is covered with white card, showing all the standard sizes from lantern plate to 15in. by 12in.

A special pattern of this enlarging easel is also made, which is provided with a detachable plate-glass front in a wooden frame. This drops right over the front of the easel, and is clamped by a couple of hooks to the back of the board. The price of this is 27s. 6d.

Whether the amateur gets the one or the other, he gets something which will not only prove itself to be a very real convenience, but one which will be found to save him a great deal of time and trouble. It has evidently been thought out by someone very familiar with the needs of the practical worker.

The Edwards Iso, Ordinary, and Lantern Plates.

ALMOST the very first photographic plates we ever used were the Edwards plates, and in that photographically far-off time, about the middle eighties, it was one of the advantages which those plates possessed that they were supplied in grooved cardboard boxes, which answered excellently for subsequent storage of the negatives. There is no doubt that those grooved boxes played a very large part in the then popularity of the Edwards plates, but beyond that advantage, there is also no doubt that the plates were an admirable product in every way, ranking amongst the very best on the market. The grooved boxes have long since gone; if for no other reason they would not be tolerated to-day on the ground that they take up too much room, and the old firm of B. J. Edwards and Co. has had commercial ups and downs which need not concern us now. But whatever may have been its trading vicissitudes, the plates have maintained both their quality and their reputation, and 1909 finds them with many whole-hearted supporters just as was the case a quarter of a century ago.

As our readers know, the Edwards business has been acquired by the Leto Co., and that firm, which has won such high repute for its papers, now means to maintain and to extend that repute with the Edwards plates. It would be a glaring contradiction to review some of the most old-established of photographic materials in these columns as "novelties," but we may at least point out that we have recently had an opportunity of renewing our old acquaintance with the Edwards plates and found them as admirable as ever. The most popular brand is no doubt the "Snap Shot Iso," a very rapid orthochromatic plate suitable for hand camera, portrait, and all forms of instantaneous work. There are two slower speeds of Iso plates issued, the "instantaneous" and the "medium," as well as the "Auto-Screen," or "A.S.," plate, which we recently reviewed. In the ordinary or non-isochromatic plates, there are four Edwards brands, the "Empire," "Special Rapid," "Rapid," and "Medium," of which the "Special Rapid," with a speed of 200-240 H. and D., is a new introduction. All these plates are the same price; in fact, all the Edwards plates except the "Hospital X Ray" plates, whose use is sufficiently described in their title, are uniform in price.

In addition to the negative plates, there are the "Kristal," a gaslight lantern plate of very fine quality, and the "Special Transparency," a lantern plate of more rapid character. Three speeds of "Iso" and three speeds of "Ordinary" flat films are also listed, so that all the possible requirements of the photographer in the way of plates are met.

CRITERION

BROMIDE
NONSTRESS

'CELERIO'
GASLIGHT

P.O.P.

ORDINARY

AND

"ESTONA"

(Self Toning.)

PAPERS FOR ALL WEATHERS

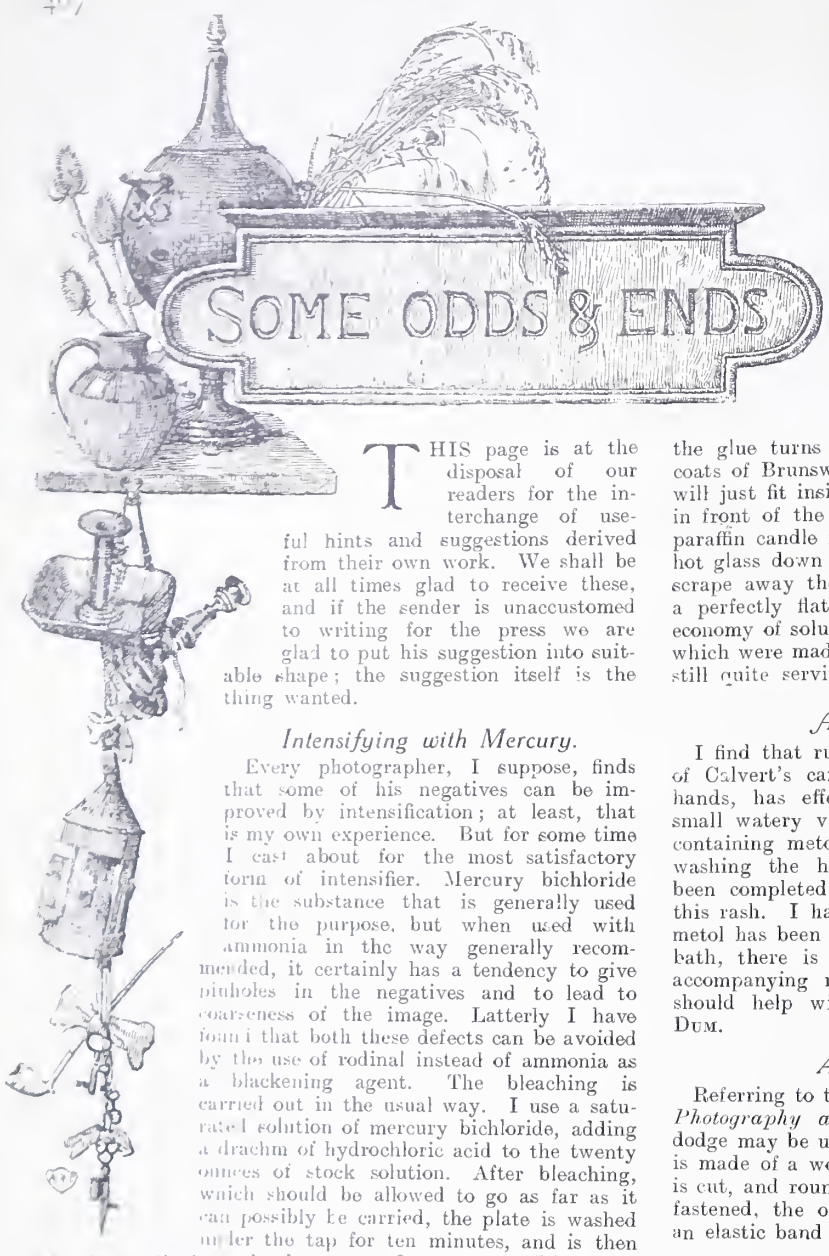
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THE BIRMINGHAM PHOTOGRAPHIC CO., Ltd., STECHFORD, BIRMINGHAM



THIS page is at the disposal of our readers for the interchange of useful hints and suggestions derived from their own work. We shall be at all times glad to receive these, and if the sender is unaccustomed to writing for the press we are glad to put his suggestion into suitable shape; the suggestion itself is the thing wanted.

Intensifying with Mercury.

Every photographer, I suppose, finds that some of his negatives can be improved by intensification; at least, that is my own experience. But for some time I cast about for the most satisfactory form of intensifier. Mercury bichloride is the substance that is generally used for the purpose, but when used with ammonia in the way generally recommended, it certainly has a tendency to give pinholes in the negatives and to lead to coarseness of the image. Latterly I have found that both these defects can be avoided by the use of rodinal instead of ammonia as a blackening agent. The bleaching is carried out in the usual way. I use a saturated solution of mercury bichloride, adding a drachm of hydrochloric acid to the twenty ounces of stock solution. After bleaching, which should be allowed to go as far as it can possibly be carried, the plate is washed under the tap for ten minutes, and is then placed in rodinal one drachm, water five ounces. This should be allowed to act for about a quarter of an hour, so as to give ample time for the blackening to be complete right through, as the action does not seem to be so rapid as with ammonia, and the plate after a quarter of an hour's washing under the tap is then finished.—W. THROWER.

Printing Border Negatives.

Not having much spare time, and finding the difficulty of the accurate adjustment of masks, etc., I cut out the opaque part of the border negative (this refers to the printed paper border negatives now so largely used), select the picture most suited to it, and mark on the film of the negative a space one sixteenth of an inch larger than the opening. I then scrape away the whole of the film outside that mark with a carpenter's chisel, so as to leave nothing but clear glass, on which the border negative may be put down, and the two printed together. This prevents any other part of the negative being used later on, but when a good many prints are being made there is a great saving of time in this way. A little paraffin brushed over the border negative and wiped off again will make it print more quickly.—DEMAS.

Cheap Large Dishes.

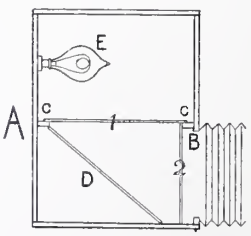
The cost of dishes for enlargements is a serious item to amateurs of limited means, so that it is possible that some fellow readers of *Photography and Focus* may be glad to learn how a brother amateur has solved the problem, at least to his own satisfaction. My dishes are made of white pine, put together with nails, and, as I am a very poor carpenter, are of the roughest possible description. The wood has glued down to it a lining of cheap thin oilcloth. I add about half an ounce of stock ten per cent. potassium bichromate solution to the contents of the gluepot, just before use, washing out the gluepot directly after use, as otherwise the glue turns insoluble. When dry the oilcloth has two coats of Brunswick black. A sheet of ordinary glass, which will just fit inside the dish, is then cut to size, and is stood in front of the fire to get quite hot. When hot, I melt a paraffin candle in a tin, pour it into the dish, and put the hot glass down on it, so as to bed firmly, and when cold I scrape away the superfluous wax. This makes a dish with a perfectly flat bottom, a great consideration as far as economy of solutions is concerned. I have dishes in use now which were made in this way four or five years ago, and are still quite serviceable.—T. WALTON.

A Cure for the Metol Rash.

I find that rubbing on the lather from the common kind of Calvert's carbolic soap, and allowing it to dry on the hands, has effectually cured the troublesome itching and small watery vesicles that form after using the developers containing metol. A simple rinse with carbolic soap when washing the hands after the developing operations have been completed ensures freedom from being attacked with this rash. I have noticed also that when development with metol has been followed by using the hands in an acid fixing bath, there is a very great tendency for the itching and accompanying rash to come on. Therefore another person should help with the fixing operations if possible.—DUM DUM.

A Simple Form of Enlarger.

Referring to the article on the use of daylight enlargers, in *Photography and Focus* for October 26th, the following dodge may be useful to some of your readers. The apparatus is made of a wooden box A, in one side of which a hole B is cut, and round this hole a black cloth sleeve or bellows is fastened, the other end of the sleeve being provided with an elastic band by which it can be stretched tightly over the back of the camera, in which the negative is fastened. At C is a horizontal partition or shelf, with an opening in it, and on this and also against the opening where the sleeve comes are fixed two sheets of ground glass 1 and 2. A mirror is then fitted at D, while the upper part of the box E is fitted with a socket to take an incandescent lamp, the wires being outside. A door is fitted, to make the box A light-tight, the best being one of sliding form. The light in E is broken up by the first ground-glass and passes on to the mirror and thence to the second ground glass, and to the negative in the camera. Tinfoil may be tacked round the inside of E to prevent the wood from scorching, but if the box is large enough this is a minor matter. Expansion of the ground-glass 1 should be allowed for, or otherwise it may break. If electric light is not available for the purpose, some means of ventilating the box could be devised so as to allow of the use of gas or a lamp as the illuminant.—H. W. B.



P.S.

Marion's "P.S." Plates are of really phenomenal speed. Get a box from your dealer and test them in conjunction with the most rapid plates on the market, no matter what speed is claimed. You will find them invaluable for short exposure work on dull days. They give a fully graded image of good density easily.

SNAP-SHOT.

The "Instantaneous" Plate made by Marion's is specially useful for outdoor snap-shot work in winter. It is of great rapidity, gives a clean, crisp image, and yields readily a negative of good density. Hand camera workers will find it invaluable.

"ISO."

Marion's "Iso" Plate is remarkable for its yellow and green sensitiveness. It renders accurately the delicate differences in foliage, and is essential to the production of the best landscape work. Speed 250 H. & D. Clean in working.

LANTERN.

A Lantern Plate which gives a very fine contact slide is Marion's Gelatino Chloride Plate. For daylight or magnesium exposures it is superb. For making slides by reduction or by contact with gas exposures, Marion's Chloro Bromide Plate should be selected.

Judge by results is all we ask.

PAPERS.

The purity and excellence of Marion's Photographic Papers have won for them first place in the esteem of the discerning amateur, professional, and trade photographers. They are so free from blemishes, render so faithfully the gradations of the negative, so easy and reliable in use that they cannot be surpassed as printing media. The Bromide and Gaslight varieties are especially useful at this time of the year.

Say to your dealer "Marion's, please!"

In case of difficulty write direct to

Marion & Co., Ltd., 22 & 23, Soho Square, London, W.



"The time has come, the Walrus said, to talk of many things."

I AM always on the look-out, as may well be imagined, for anything strikingly novel in the photographic world, and have noticed one or two things lately that are so labelled. The fact that they are about as old as toothache or the hump does not count.

* * *

First there is the wonderful news, all freshly dished up, of that deadly mummy-case in the British Museum. I have already written twice about it, and anyone who fancies tempting his luck by examining it will find it in the corner reached by turning sharp to the left on entering the last of the Egyptian rooms. By its side is the famous photograph of it. You will remember that the photographer, or his aunt or his cat, or somebody or something, died afterwards. This shows the rash folly of photographing anything. No one can dispute the statement that large numbers of people who have taken photographs have subsequently expired. We cannot be too careful. Anyone who exposes a plate on a mummy-case will certainly die after it.

* * *

The next novelty is the description of some slides of mountain scenery which were made from negatives taken at night "the light utilised being that of lightning flashes." This is no doubt an excellent light to utilise, but, unfortunately, its supply is somewhat irregular and uncertain, and although the results may be striking the operator may be struck. It is not stated how many flashes of a given size go to make one exposure; but it seems pretty certain that the man who made all his exposures by lightning light would have a very meagre stock of negatives, and would very likely be a cinder before he had accumulated a lecture set. The gentleman who thus understudied the defiant Ajax stated that photographs might be obtained of mountains fifty miles away "with powerful lenses." I am glad to hear again of our dear old friend the "powerful" lens. Bless his sturdy old heart! Often have I seen him filling vast space in a pawnbroker's window, his powerful glasses covered with scratches and bubbles, and his mighty mounts corroded with rust and green with the verdigris of ages. He is really worth about fourpence, but hardly looks it. And he is labelled, "This powerful lens, only £5." He might not be able to tackle mountains at fifty miles, but he is probably good up to forty-nine.

* * *

Then there is another great novelty—the cleptograph. I am sure no one will recognise it under its new name, although most readers, probably being sufferers at time from kleptomania, will have some inkling of its purpose. It is, in short, an automatic, and all but human, camera fixed in the wall for the purpose of taking photographs of burglars. When the burglar enters the room, an electric wire (what marvellously useful things these electric wires are!) causes the camera to focus itself on the marauder. When this has been fully accomplished, and the burglar has stepped well out of the field of view, another electric wire fires off a flashlight, and a portrait of the villain would certainly be obtained if he had not already moved away. Next day, when the owner of this marvellous apparatus misses his safe, and jewellery, and the electro-plated toasting fork and German silver cruet stand, he develops the plate and places the portrait of the burglar which he has not obtained in the hands of the police, who arrest some likely fellow, and with the aid of a little judicious perjury and a photograph of their own cause him to do time. The idea is a lovely one—for the silly papers. Even if the idiotic arrangement happened by some strange chance to obtain a good photograph of W. Sikes, do you suppose William would care? Not he. When he had bagged the swag he called for, he would calmly proceed to dig that camera out of the wall, smash the plate, and pawn the apparatus for ninepence. It takes more than two electric wires and a penn'orth of magnesium powder to disconcert Bill when he goes a-burgling. I know Bill.

* * *

Although these matters to which I have referred are being served up in certain papers as something quite fresh, they are really hoary with age. But I recognise that there may be novel points about the camera which has just appeared in London under the melodious name of the "Cirkut." When I say that this word is intended to represent the English word circuit, it will be pretty obvious from what great country the camera emanates. There is only one country in the world where people could call circuit cirkut without feeling ill. This instrument goes one better, or worse, than the camera to which the "Westminster Gazette" refers as a "pianoram," which has frequently been employed for taking "pianoramic" views. The "Cirkut" makes a complete cirkut. It goes right bang round once, and there is no reason why it should not be made to continue going round, taking photos. photos all the way.

* * *

Still quoting the "Westminster Gazette," I may say that a gentleman from Boston (U.S.A.) has been "at large" in Europe with a "Cirkut," "stalking the elusive landscape." As might be expected, the landscape was in every case entirely unsuccessful in eluding the gentleman with the "Cirkut" from Boston. A landscape has no earthly chance to elude a "Cirkut." Where in thunder is it to go to dodge a camera that boxes the compass in one wild and comprehensive whirl? I do not quite like that expression "at large." It makes one wonder to what building in Boston they would take the "Cirkut" man if they caught him. But even if he should be caught he will have the consolation of knowing that his success while at large was quite phenomenal, for the "W.G." states that he has photographed "what was invisible to the back of the head." Everything is invisible to the back of the head. Ergo, he has photographed everything.

* * *

It has been pointed out that these photographs taken with revolving cameras and then presented as a flat continuous strip look unnatural. They do. But only for the present. Before long they will be the only photographs that look at all natural. It is pretty certain that the human race, in view of the introduction of motor traffic, will develop wide-angle eyes, which not only embrace a considerable view, but can be moved in divergent directions. It will be absolutely necessary to see both up and down the street at the same time. It may even be necessary to hasten evolution by artificial means. The optic nerve with the eye still at the end may be trained gradually, like a creeper, up to the top of the head, and there encouraged to revolve steadily. Then a "Cirkut" will be the only possible camera. Thank goodness I shall be by then a mere epitaph. THE WALRUS.

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December 14th, 1909. TUESDAY. No. 1,101. Vol. XXVIII.

The Hand Camera in December.

With many instruments snap shot work is impossible in winter : exposures at mid-day : snow scenes : realising under-exposure.

ENQUIRIES which have reached us during the last few days suffice to show that there are a good many users of the hand camera who do not realise as fully as they should do that in the poor light we have been having lately, and must expect at this time of year, the occasions when a hand camera can be used in the hand without a certainty of under-exposure, are very limited. It is in this direction, and not in the mere "quality" of the work done with it, that the costly camera and lens score.

If we take. for example, one of the popular instruments, not of the cheapest kind, but of medium price, we find that it is fitted with a lens which will work at f/8, and a shutter either with one definite speed, which is generally somewhere about a twentieth of a second, or else with graduated speeds of $\frac{1}{5}$th, $\frac{1}{25}$th, $\frac{1}{50}$th, and $\frac{1}{100}$th of a second. The three last-named speeds are generally all about the same duration actually, and that somewhere in the neighbourhood of a thirtieth of a second. With the fastest plates or films now made, the great majority of the subjects which the hand camera worker generally fancies are not possible at this time of year with exposures of a twentieth or a thirtieth of a second and a lens at f/8.

What an Ordinary Subject requires.

Let us take, as an example, a street scene or some building of historical or other interest. Extremely rapid plates require an exposure of at least a tenth of a second at f/8 in the best December light in this country, if the negative is not to show most unmistakable signs of under-exposure. If. as is the case with many of us, we cannot get out to do our photography until the afternoon, we find that the best of the light is over by two o'clock, and that before long a quarter of a second will be wanted. There is nothing for it but to put the camera on a tripod and give a time exposure; few of us can give an exposure of a quarter of a second, with the camera held in the hand, with any chance of success.

It is very much the same with landscapes, unless indeed they are very open landscapes. If they have—as most landscape subjects which make effective pictures do have—details with deep shadows in the foreground, the ordinary "snap shot" exposure. which as we have shown is generally about a twentieth or twenty-fifth at f/8, is only correct during the mid-day hours and in the best of light. In the case of a snowfall the time is extended a little, and from nine to about half-past two we may expose with a fair degree of confidence; but many snow scenes, from the blackness of their shadows, call for more.

A Flat Contradiction.

We are quite prepared to hear from some reader or other that all this is wrong, and that he is getting fully-exposed plates with much shorter exposures; but the explanation of such communications is generally nothing more or less than a defective shutter. We have preached aganist the under-exposed snap shot before. We have had sent to us, done under conditions that we have said were impossible, examples of work which the senders fully believed were properly exposed, but which had dense black shadows without a trace of detail in them. and manifestly called for several times the exposure they had received. The great evil of hand-camera work is under-exposure, and there are apparently many who do not realise that their negatives are under-exposed, and in consequence spoiled, and that the conditions under which they are working preclude any other result.

MEMORANDA *for the week.*

To send a postcard to Kodak Ltd., 57, Clerkenwell Road, London, E.C., asking for a free copy of "Smith Major" as offered in "Photography and Focus." (See page 473).

Use the Camera on a Stand.

Those who have shutters which will allow them to give one-eighth or one-tenth of a second, and lenses that work at f/5.6 or f/6, will find that there is a great deal of hand-camera work that can be done even in the dull days of December; but those who are not so fortunate as to have such an equipment will do well to give up the use of the hand camera as such until the light gets better again.

This does not by any means imply that they need give up the use of their hand camera. All that need be done is to mount it on a stand, fit the lens with some sort of cap that can be put off and on without shaking the camera, and fix the shutter permanently open. There will be certain subjects which they can no longer attempt—subjects with moving figures mostly—but there remain a great many which can be dealt with just as well, if not better, in this way than the other. Instead of using the largest stop, we may employ f/16 or f/22, which, unless the lens is one of altogether exceptional excellence, will in itself be found to lead to an improvement in the definition. With such a stop, the subjects that would ordinarily have a "snap shot" exposure may be given a time exposure of a second or thereabouts, and so under-exposure may be avoided.

For those who have Very Rapid Lenses.

The fortunate possessor of a very rapid lens, especially if he is a reflex worker and has a focal-plane shutter of high efficiency also, is not limited so much, and will find that there is a great deal of hand-camera work still possible. The lens will have to be used at its full aperture in most cases, and this will mean that the focussing will have to be very accurate, and that it will not have very much depth of focus. He will have to pay particular attention also to holding the camera steady, as with a focal-plane shutter working as slowly as a tenth or a twentieth there is great risk of movement. But by attention to these details his camera can be used as a hand camera right through the winter for most of the ordinary forms of work.

The examples of very rapid photography which are shown by the makers of reflex cameras as specimens of what can be done with the instruments they send out, it should be noted, are of course made when all the conditions are most favourable. Because in the brilliant light of midday in May or June, some clever worker succeeded in getting what looks like a fully exposed result with perhaps the five hundredth of a second, it does not follow that an equally well exposed plate or even a merely passable result can be got in mid December. Even in June, the amateur who does not appreciate how advantage was taken of such points as the selection of a subject with no great shadows near the camera, is likely to be disappointed in his attempts to rival the manufacturers' specimens. At this time of year he will do well to put aside all thought of doing so.

Miracles must Not be Expected.

The great thing, to avoid disappointment and waste both of time and materials, is of course to realise what is and what is not possible. Miracles are not going to be worked in our favour, and if experience and the exposure meter tell us that a quarter of a second is wanted, if in spite of that we give a twentieth, we may be quite sure that we shall never want to do much with the negative unless it is to throw it away. R.C.B.



Christmas and Christmas Numbers.

We have been asked if we propose to publish a Christmas number this year. We do not. This issue is intended to help the photographic trade to secure a larger share of the business in Christmas presents than has hitherto fallen to their lot; but it is not intended to be in any sense a Christmas number, nor do the publishers of *Photography and Focus* wish at the present to approach the trade with any special force to secure extra advertisements. The present is the season when photographic advertisements are least remunerative; and most of the big firms are closing their accounts for the year and in other ways clearing the decks for next season's action. When the time comes at which photographic business may be said to be reopening, things will be different.

☞ **Next week we shall publish an article on portraiture on winter evenings, dealing with a seasonable form of negative making for Christmas gatherings of family or friends.**

Values in Photography.

There is a delightfully "Coburnesque" letter in the "Westminster Gazette" for December 6th from Coburn himself, criticising the review which that journal gave his "London." The reviewer, although very temperate, just, and complimentary, laid himself open to attack, by digressing from his subject to the broader ground of pictorial photography in general. He made it a complaint that were the Coburn prints chalk or wash drawings, "scarcely one of them would pass the scrutiny of a trained art master." As Coburn very fairly retorted, the "trained art master is not the last court of appeal," and the reviewer did not "seem to be awake to the fact that all that is vital in modern art is unacademic and full of the personal freedom of the individual worker." The whole thing is an excellent advertisement for Coburn, who really gets far more than his share of gratuitous publicity.

☞ **The "Dark Room Dialogue" which we shall print in "Photography and Focus" next week will deal with the subject of enlarging, particularly with the production of negatives such as will give good enlargements direct.**

Christmas Presents for Photographers.

The announcement which we make on page 479 this week is one of a plan by which we hope to be of assistance to our photographic readers ultimately, but to their non-photographic friends more directly, and with that intent our publishers are taking steps to make

our offer known outside the boundaries of the photographic world. Briefly, what we propose is to place the expert assistance of our staff at the disposal of anyone who wishes to make a present of some useful piece of photographic apparatus to an amateur friend. The mistakes made by the non-expert in such matters are only too well known. The cigars that ladies buy for their male friends are the standing jest of the cheap humorist, and if ladies were as prone to look a gift horse in the mouth as men are there is no doubt that we should know of well-meant gifts which caused their recipients to shudder. The gift of a portrait lens to a photographer interested solely in architecture or of a set of ferrotype squeegeeing boards to the "gum splodger" would be quite as incongruous, and it is just this which we propose to try and prevent. Photography, from the many little conveniences and appliances which have been devised by inventors to make work easier or better, provides a host of opportunities for anyone wanting to make a present, whether the cost of that present is to be a matter of pence or of pounds. Probably no amateur photographer who is now following his hobby is so completely equipped that he would not welcome some little addition to his equipment. If we should be the means of directing our readers' friends to such opportunities for manifesting their goodwill we trust they will be grateful.

THE JOYS OF LIFE, OR SPECIALISM.

It's strange, how in photography, one very often finds,
That special branches of the art appeal to certain minds;
There's Jones who's great on optics, for this seems to be his bent,
On this fascinating study nearly all his life's been spent.
By simply looking at a lens, its merits he can tell,
He talks away of nodal points, and other points as well;
He knows the different properties of varied kinds of glass,
Their own refractive indices, and how much light they'll pass;
There's nothing that appeals to Jones, or gives to life such zest,
As aberration hunting, when he has a lens to test.

There's Sawyer, whose constructive bump is of abnormal size;
And all his apparatus shows his splendid enterprise;
His outfits and enlargers may be numbered by the score,
And yet they keep increasing, for he's always adding more;
His stock of printing frames would reach from here to Timbuctoo;
He turns them out by dozens, when he's nothing else to do;
His life would be a dreary blank, without his glue and tacks,
And many a pleasant hour he'll pass, whilst making draining racks;
Yet, strange to say, a photograph he's never known to "take,"
His mind's so fully occupied with planning things to make.

Now, Vincent's never satisfied with what his lens will give,
He'll spend a week or two in faking up each negative,
There's not a single one of these that ever he produced,
But what has been intensified or locally reduced;
He lays out heaps of money on matt varnish and on stumps,
Buys tracing paper by the ream and graphite in huge lumps;
He'd hate to take a perfect neg., in fact he never tries,
He likes them best defective, with large pinholes in the skies;
The brightest gleams of happiness occur in Vincent's life,
When planing down the high lights with a big retouching knife.

Then Splodger's great on printing, which appears to be his forte,
But doesn't care for papers of the niggling detail sort;
He shows his love of boldness in the process he selects;
He likes his lights and shades in chunks, and aims at broad effects;
With anything approaching truth he's never satisfied,
But whacks the pigment on, until the tones are falsified;
He cannot frame these works of art, because, alack, alas,
His shadows are such mighty mounds, he can't put on the glass;
So Splodger gets his share of joy, there's not the slightest doubt,
When, armed with trowel or with brush, he flings the paint about.

☞ **Next week we shall publish in "Photography and Focus" an entertaining description of the Christmas dinner as portrayed by microscope and camera.**

A Coincidence.

Several readers have written us, pointing out the sad coincidence between the death of an amateur photographer from drinking potassium cyanide solution by mistake and the rhyme published in this column a fortnight ago, the very day of the publication of the tragedy, describing an imaginary case of the same sort. Few amateurs use cyanide at all, it is quite the most deadly chemical which has any photographic value; but a very great many employ the highly poisonous mercuric chloride. The other compounds used, although all of them are not classified as poisons, still include a good many which would be very injurious if taken internally, and many which are equally harmful to cuts in the skin. When the possibilities which underlie the misuse of photographic chemicals are taken into consideration, the number of serious accidents to photographers that are caused by them is a very small one, it must be confessed. We are sometimes asked if it is possible to practise photography using only those chemicals which are not of a poisonous nature. The reply to such a question has to be in the negative. But, at the same time, with only reasonable care, there should be no risk of anything so unfortunate as the accident by which a Portsmouth solicitor has just lost his life.



REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must he given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only one will be selected for reply. (4) Prints may he sent for criticism, hut a separate coupon must be sent with each print, and they must be accompanied hy a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will he dealt with hy post, and then only when they concern apparatus actually in the possession of the enquirer on approval for which purpose a stamped addressed envelope must be enclosed.

G. C. WRIGHT (Hanwell).—Yonr letter of the 4th inst. is received and its contents noted.

NATIONAL (Abram).—Marion and Co., 23, Soho square, London, W.C., will send you one on application.

LENS (Dudley).—All you have to do is to divide 8 by 1½, and the resnlt will give you the F number.

BANJO (Woolton).—We are unable to traco the advertisement referred to, and certainly have no recollection of it.

DRANOEL (Brixton Hill).—The firm is genuine enough; we are asking our advertisement department to take the matter up.

GLASS (Birmingham).—It is a question of the glass and of the curves. Generally speaking the materials are the same, hut are disposed differently.

NEPTUNE (Hoddesdon).—It will have no effect on the prints at all. Sodium metahisulphite is just as good as potassium metabisulphite for the purpose.

ENQUIRER (Long Eaton).—"Practical Retouching," by Drinkwater Bntt, price 1s. nett, or post free from our publishers 1s. 2d., will tell you all that can be told in a hook; the rest is practice.

C. BUCH (Pontypridd).—Mr. H. Warner writes to say that you can get one of the "Focus" thermometers for 1s. 6d. post free from Mr. N. R. Leaver, 178, Railway Approach, Shepherd's Bnsh.

C.M.D. (Sale).—The matter is still standing, out we can hardly send you a pull. We are glad to have your testimony of its value; hut there are many who would resent any omission such as you suggest.

PARADISE LOST (Edinburgh).—Many thanks for your kind and appreciative letter. We reciprocate your good wishes. A note to Ozohrome, Ltd., Weodington Road, Kentish Town, London, N.W., will bring you full particulars of oil ozobrome, which is exactly what you want.

H.M.T. (Bourne End).—We are unable to criticise prints in this column, hut may point out that your cards nre all very hadly stained. You will do well to use amidol, to rinse them between development and fixing, and to keep them well under the surface of tho liquid when fixing.

MAJOR (Westcliff-on-Sea).—We have no recollection of such an article, and would suggest that you measure the time taken to give the tint, and make a series of exposures on the subject in strips on one plate, so as to have a wide range of exposures. This would at once indicate hoth the ratio and the correct exposure.

K. E. KING (Accrington).—Seven or eight inches from a hurner of the ordinary type will be fonnd to be most generally convenient; but there is no rnle on the subject. If it is much farther away, the exposures become too long; while if it is nearer, with a negative of whole plate size, the centre receives much more light than the edges.

INVESTIGATOR (Kingston Hill).—The two lenses are the same nnder different names. Unless you are particularly anxious to have a hox-form camera, in view of the points on which yon lay stress, you would do well to get a folding one, with between-lens shutter and dark slide. If there are any yon fancy, if you will send ns a list we will look at it and advise.

H. THOMPSON (Harlesden).—The tissne referred to is for use either hy single or double transfer. It would be well, first, to familiarise yourself with the use of ordinary commercial carbon tissue, "The Carbon Process," hy Illingworth, price 1s. nett or post free from our publishers 1s. 2d., will give you full working instructions. The spirit sensitiser can be nsed. Many thanks for your good wishes.

KILKEE.—Your omit your address. If the solution did not dry up it would work after a fashion, for a month or two; but it is not a course that would he followed hy anyone who cared for the best resnlts. It would be better to reduce the hypo to three ounces, and to pour out enough to fix the plate, throwing it away after use. It is important to mix the snlphite and acid together in a little water before adding them to the hypo.

SHOT (Aldershot).—Raines and Co., Ealing, will do what you want. We do not recommend "cheap" houses at any time.

C. H. DOVETON (Bangalore).—Your letter has come to hand, hut no print. We are sorry, we have no use for prints as offered.

J. EYRE POPPLETON (Pontefract).—No doubt the Service Photographic Co., Ltd., of 292, High Holhorn, E.C., will supply what you require.

R. H. TURTON (Notts.).—The hest hook is "The Half Tone Process," by Julius Verfasser, price 5s. nett, or post free from our publishers 5s. 5d.

BUDGET (Salishury).—There is no doubt that the index refers to a hrake on the shutter mechanism. You will find that at one position the shutter works, or should work, more slowly than at another. As you cannot state the make, more than this we cannot say.

T. MCNEILLY (Ballynahinch).—You were answered in the next issue of the paper to go to press after your query arrived, to wit, Decemher 7th. There is no need to enclose a stamped envelope, as we do not reply by post, except as ahove.

DUDLEY N. STONE (London, E.C.).—Our note was quoted from the "Scientific American," and it does not appear that the camera is on the market. If you want anything of the kind we expect it would he necessary to design one and get it made over here.

CRITICISM (Southall) asks if we criticise the prints sent in to us on pictorial or technical grounds. A.—On either, according to what we take to be the needs of the photographer who sends us the print. We endeavour to find out where it is weakest, and to indicate how it can he improved. The idea all along is to help the sender.

RADIO (H.M.S. Welland).—Sea water may be used for almost all photographic operations, but it is hetter to use fresh for making up toning and developing solutions. Negatives and prints may he washed in sea water if the last two or three changes are giv n in fresh, taking care that they are thorough changes by draiuing well hetween each. Thanks for good wishes.

LEARNER (Todmorden).—The 4, 8, 12 means that when these are brought in front of the other lens in the camera, objects 4, 8, or 12 feet away are sharp. Better not trouhle about the "Iso screen" at present. You would do well to get "The Hand Camera," by Wastell and Bayley, price 1s. nett, or post free from our publishers 1s. 2d., and read it carefully, writing us on any practical point which is not qnite clear.

H. B. CROOK (Woolston).—The suitability of a lens for very fast work is expressed hy the F number of its largest aperture. For the purposes named f/5.8 is not very fast; hut it is fast enough for all ordinary hand camera work. The shutter is also suitahle for tne latter, hut a focal-plane shutter is wanted for the work named. It is fair value at its price, hut you would have to pay two or three times as much for a really first-class outfit for the purpose.

ENQUIRER (Haywards Heath).—We are sorry we cannot reply in this column to so general an enquiry as your own. If you can get a copy of *Photography* for May 21st, 1907, page 431, you will find a four-page article on the subject, and we have another in type, which we hope to use early in the new year. It is best to make the transparencies on lantern plates *backed*, or, still hetter, to make them hy the carhon process on transparency tissue.

W.H.A.S. (Stockport).—There is no book on the lines you require; nor do we quite see what you could get from a hook that would really help you. Such an exposure as you suggest would give you under-exposure with any developer. This is one of those cases in which you have to choose between showing movement and under-exposing. If you use the standard developer in the way suggested, you will get out everything there is to he got out, and if you want more than that you must either use a large aperture or he content with a slower exposure. The examples ahout are generally made under exceptionally favourable conditions and with lenses working at f/3.5 or thereahouts, and then are almost invariably under-exposed

CARRIE (Barrow-in-Furness).—We have forwarded the letter to our contributor.

ECONOMIC (Stony Stratford).—The makers of the "Economic" postcards are unknown to us; perhaps some reader can supply the information.

SELTONA (St. Leonard's-on-Sea).—No harm is likely to arise from washing in the same water prints on different hrands of self-toning or other p.o.p.

R. SCHONHERR (Shepherd's Bush).—You will find that at least one or two hours at the full aperture with the fastest plate you can huy will be required. Backed plates are always preferahle.

HAROLD (Enfield).—The makers were the Rochester Optical Co., of Rochester, U.S.A., hut the business has long since been acquired hy the Kodak Co., who would no doubt quote yon for the shutter.

J.P. (Leeds).—The colour used is ordinary water colour mixed with a very large proportion of Chinese white, so that the pigment is quite thick and creamy, and hides completely anything to which it is applied.

G. C. WRIGHT (Hanwell).—We are afraid you can do nothing further, unless you think it worth while to employ a solicitor. Why not call? We suspect that the work has proved more than she can manage. We have had no other complaints.

LENS (Altrincham).—It is a very old type, and you would not find anything ahout it in *Photography and Focus* in recent years. It is good enough in its way, and the complete lens will be found to he the most suitable for portraiture. The firm has no place of husiness in England; hut enjoys a fair reputation in France.

F.C.B. (Hereford).—The prints in the doll competition will he judged partly as examples of good technical photography, and then for the way in which they carry out the idea of the competition; *i.e.*, some definite action suggested by the dolls and their pose. There are no restrictions heyond those contained in the rules.

FOCAL PLANE (Hurlford).—There is no definite ratio, hut the difference is generally ahout fifty per cent. That is to say, 1-6th second with an ordinary shutter is ahout equal as far as exposure of the plate is concerned to 1-9th second with a focal plane. We regret we cannot explain the mechanism in this column. It would take too much space.

DOMINO (Hereford).—The commercial ones are printed from line hlocks, often in some sticky ink which is then dusted over with hronze powder to make it more opaque. In a small way the hest plan is to make the design in artists' hlack on Bristol hoard and then to copy it in the camera, or else to make it on tracing paper and make a negative hy contact from that.

EXPOSURE (Ilford).—We never regard enquiries such as that which you send as a nuisance. Your supposition as to increased exposure is quite correct, and unless you feel that there is something very definitely to he gained hy the use of the orthochromatic screen and plates, it would he hetter to stick to the ordinary plates and so avoid the increased exposnre, at least during the dull weather

W. FRANCIS (Edgehill).—The colour is due to oxidation of the developer left in the paper after development. The remedy is to wash the prints for a minute hetween development and fixing, to use an acid fixing bath, and to take care that they are kept well under the surface of all solutions until fixed and washing is well in progress. The edges of your card are practically free from stain as these are the parts which generally get the developer washed out first.

J. HARE (Plymonth) enquires the best way of treating prints which have hegun to show signs of fading. A.—It is donhtful whether, when fading has commenced, there is any treatment which will stop it, and were the prints ours, and important as records, we should at once copy them in the camera and make fresh prints to ensure against complete loss. If the prints that are fading are then washed for half an hour, then immersed for an hour in a five per cent. solution of alum, and then again washed and dried, we do not see that there is anything else that can be done.



THE LITTLE GALLERIES of the Photo-Secession are now occupied by a series of lithographs by Toulouse-Lautrec.

MESSRS. HOUGHTONS', LTD., SMOKING CONCERT is fixed for Saturday night, December 18th, at the Princes' Hall, Hotel Cecil. A fine programme has been arranged. Application for tickets (price 2s. each) should be made to the secretary, 88-89, High Holborn, London, W.C.

A PRESENTATION, which took the form of a handsome clock, was made to Mr. Joseph Chamberlain by the Tunbridge Wells Amateur Photographic Society, on retiring from the position of honorary secretary, which he had held for twenty-one years. During that period he had arranged upwards of 570 meetings, and issued about 40,000 letters and notices.

SULPHIDE TONING. According to the "Focussing Screen," the little "graphed" journal of the Mill Camera Club, Mr. Richardson, demonstrating the toning of bromide prints with sulphide, said that after bleaching in a solution of ferricyanide and bromide it was a good plan to immerse the prints in a weak solution of sodium carbonate. This helped to give a deep tone to the finished prints.

A DEVICE FOR WASHING LARGE PRINTS, which is described in the "Scientific American," consists of a board of slightly larger dimensions than the print to be washed, provided with four clips at the corners. The print is fastened under the clips, and the board is then floated face downwards on the water. This method of washing is very old, and has often been described in *Photography and Focus*, except that darkroom pins have generally been suggested in place of clips.

"NATURE NOTES WITH A CAMERA." Lecturing to the Woolwich Photographic Society on this topic, Mr. Hugh Main, B.Sc., said that for producing life-size photographs of insects, by means of a quarter-plate camera of long extension, no other apparatus beyond a retort stand to support the insect and a shaving mirror to illuminate the shadows were required. The distance from lens to plate for that scale had to be twice the focal length of the lens. The camera might be placed upon a box on the table close up to a window (indoors) with a north light. Great sharpness is required, and a focussing lens held against the ground-glass is an advantage. Orthochromatic backed plates were recommended, a yellow screen being necessary sometimes for butterflies and other brightly coloured objects. Factorial development and an exposure meter were advocated. A good field for studies was to be found at the cabbage patch, where many eggs of the large white butterflies may be found. Caterpillars are numerous on the leaves of the nasturtium.

STOLEN LENSES. Messrs. C. P. Goerz, Optical Works, Ltd., report that the following lenses have been stolen from them. Dagor lenses in sunk mounts 0-261990, 1-235313, 1-262577, 2-254604, 168-249484; Celor lens in sunk mount 1-266826; ditto in ordinary mount 4-242271.

A GERMAN ANNUAL of a complete and comprehensive character is the Deutscher Photographen - Kalender, which is now in its twenty-ninth year. The volume for 1910, price three marks, has just reached us. The publisher is Karl Schwier, Verlag der Deutschen Photographen - Zeitung, Weimar.

THE NORWICH AND DISTRICT Photographic Society holds its exhibition from February 1st to 5th at the C.E.Y.M.S. Rooms, Orford Place, Norwich. Entries close January 18th. Prospectus and entry forms can be obtained from the honorary secretary, J. T. Tanner, the Lodge, Bowthorpe Road, Norwich.

THE NORTH MIDDLESEX Photographic Society's exhibition, which was held December 1st to 4th, at Hanley Hall, London, N., was the twenty-first, and was celebrated by the issue of a handsome illustrated catalogue and souvenir. Awards were won by A. G. Lawson, C. A. Morgan, G. Allbon, L. Dick, H. W. Fincham, D. P. Fox, A. R. Rollings, M. F. Black, E. Burton, and J. F. Nisbett (2).

AT THE MEMBERS' EXHIBITION of the Glasgow and West of Scotland Amateur Photographic Association plaques were won by J. M'Clure, A. G. Watson, J. W. Downs, W. R. Baxter, H. Thomson (2), R. Crerar, J. Sawers (3), T. Martin, J. McKissack (2), and A. J. Garwood. Honourable mention was made of works by T. Carlyle, R. Ure (2), P. Mitchell, T. Calder, W. Baird, J. Weir, V. L. Alexander, and T. Carlyle.

THE CHRISTCHURCH WEEKLY PRESS is a New Zealand journal which issues a Christmas number each year of the most attractive character. Though produced throughout at the Antipodes, it is in every respect on a par with the finest productions of the kind in this country, and is a remarkable testimony to the state of journalism and printing at the other side of the world. This season's number just to hand is full of beautifully reproduced photographs of what must be one of the loveliest lands.

SUGARING THE PILL. The popularity of our "Dark Room Dialogues" serves to show that the pill of information is all the more popular if it has a sugar coating of entertainment; and the Kodak Co. seems to appreciate the same fact, if we are to judge by "Smith Major, Myself, and a Brownie." It is an account of experiences of a public schoolboy and his camera, which forms not merely very good reading, but is useful withal, and an admirable advertisement of the Kodak products. A copy of "Smith Major" will be sent to any reader of *Photography and Focus* who sends a postcard request for it, mentioning this paper, to Messrs. Kodak, Ltd., 57-61, Clerkenwell Road, London, E.C.

THE HEREFORDSHIRE Photographic Society's competition for the "Pilley" Challenge Cup resulted in F. C. Pritchard being declared the winner, for the second time, with his picture "Evening on the Monnow." A. J. Manning took second place.

RECORDS NOT WANTED. According to the "Rochdale Times," the officials of the Rochdale Amateur Photographic Society made an appeal to the members, just before the exhibition opened, to let their work be more of the pictorial and less of the record.

THE WESTMINSTER PHOTOGRAPHIC EXCHANGE, of 111, Oxford Street, London, W., has just issued a fresh catalogue of second-hand and shop-soiled apparatus, which contains many bargains. A copy will be sent to any reader who sends a postcard for it.

VIGNETTING ON S.C.P. was demonstrated by Mr. Kenneth F. Bishop at the Birkenhead Association. Mr. Bishop added sugar to the developer, by that means retarding its action, and then applied the developer to the print as required by means of a brush.

THE ALTRINCHAM PHOTOGRAPHIC SOCIETY is arranging for a course of lectures covering the whole of modern amateur photography. Non-members can obtain full particulars by applying to the honorary secretary, Mr. E. J. Middleton-Guimaraes, Daisy Bank, West Road, Bowdon.

LECTURING ON FLOWER PHOTOGRAPHY at the Preston Scientific Society, Rev. R. W. Berry said that he found a background of light grey the most generally useful for the purpose, but it had to be very carefully selected, so as to harmonise with the subject.

THE GLASGOW AND WEST OF SCOTLAND Amateur Photographic Association is holding two exhibitions this year. Its members' show is just over, and in February it will hold an open one in conjunction with the Edinburgh Photographic Society. All exhibits entered for this and for the Edinburgh exhibition will be conveyed from Glasgow to Edinburgh free of charge.

WARNING. Advertisers of apparatus, etc., for sale are cautioned against sending any goods to strangers unless our deposit system is employed. Several advertisers have recently been defrauded by someone writing under various names and from various addresses promising to send the money when the goods were received. The addresses on examination proved to be merely places where letters were taken in.

TO SECRETARIES & RECORDERS.

We are at all times glad to receive reports of Society Meetings, of a practical, useful character; but cannot give space to matters of strictly local interest, or to abstracts of lectures. A pithy remark or some hint or suggestion in sufficient detail to be of service to other photographers will be welcome. Unsuitability is the only ground for exclusion, and those who have been kind enough to send us reports which have not appeared are asked to note this for their guidance in the future.



Suggestions for Xmas Presents.

Intended to help those who wish to make some suitable gift to an amateur photographer this Christmas time but are in doubt what to select.



With a view to assist those who have presents to give to make a choice, we have asked a number of firms of manufacturers and dealers to give suggestions as to which of their goods they recommend as suitable for Christmas presents. Photographic materials (plates, papers, chemicals, etc.), as distinct from apparatus, have not been included, as something which is used up is not generally liked for the purpose; but a supply of the particular materials any amateur is known to use, apart from this objection, would make a very useful present.

Those who are not photographers and wish to secure expert advice are referred to the form given on page xxiv. this week.

ADAMS AND CO., 24, *Charing Cross Road, London, W.C.*
Several specialities of their own manufacture, including the Vesta, Minex, Vaido, and Idento cameras.

ALDIS BROS., *Old Grange Road, Sparkhill, Birmingham.*
A No. 2, Series II., Aldis lens for a quarter-plate camera. For any user of a quarter-plate hand camera, a similar lens in an Ibso shutter; or, if it can be afforded, a No. 11 Oxys lens in a compound shutter. For the user of an Aldis lens, a Duo or Trio lens to suit it.

THE EMIL BUSCH OPTICAL CO., 35, *Charles Street, Hatton Garden, London, E.C.*
The Busch Bis Telar telephotographic lens, as an adjunct to other lenses, for those who already have cameras. The Busch Chic pocket camera.

W. BUTCHER AND SONS, LTD., *Camera House, Farringdon Avenue, London, E.C.*
The Klimax, Cameo, Carbine, and Midg cameras. The Valu, Express, Record, and Abbeydale enlargers. Sundries and accessories.

J. H. DALLMEYER LTD., *Denzil Road, Neasden, London, N.W.*
Dallmeyer f/6 Stigmatic lenses, the Adon telephotographic lenses for those who already have cameras, the Penric cameras with Dallmeyer lenses, the telephoto f/10 snapshot lens, the new Carfac f/6.3 lenses (giving three lenses in one), colour screens, shutters, etc.

JONATHAN FALLOWFIELD, 146, *Charing Cross Road, London, W.*
The Falloflex reflex camera. The Falloroll hand camera for plates or films. The Falloroll enlarger, to take any small folding camera. German silver daylight developing tank. Spanish roan padded albums. Electric darkroom lamps. Opera glasses. The Facile actinometer.

C. P. GOERZ OPTICAL WORKS, LTD., 1 *to* 6, *Holborn Circus. London, E.C.*
The vest pocket Tenax, a folding pocket camera of very compact character. The Tenax camera. The Anschutz camera. Goerz lenses of various kinds.

JOHN J. GRIFFIN AND SONS, LTD., *Kingsway, London, W.C.*
The Tourist's Tank, a developing tank in nickel silver. Complete sets, consisting of a supply of brushes, papers, pigments, etc., for printing in bromoil.

HOUGHTONS, LTD., 88 *and* 89, *High Holborn, London, W.C.*
The Sanderson hand camera. The Mascot and Klito box form cameras. The Folding Klito camera. The Ensignette Christmas outfit—an Ensignette camera in a morocco wrist bag, with box of spools, etc. The presentation Ticka outfit. The Victo half-plate stand camera set.

KODAK, LTD, 57, 59 *and* 61, *Clerkenwell Road, London, E.C., and branches.*
Box form Brownie Kodaks, fixed focus made in four models. Folding Brownie Kodaks, with focussing scales, folding into a small compass. Box form Kodaks, fixed focus, requiring no unfolding (the Bull's-Eye and Plico Kodaks). Folding pocket Kodaks. The Kodak daylight developing tank. The Brownie developing box. Complete Brownie outfits, containing everything necessary to start photography.

J. LANCASTER AND SON, LTD., *Camera Buildings, Broad Street, Birmingham.*
The Ellipsoid enlarger. The Excelsior condenser enlarging lantern. The Champion enlarging lantern. The ideal telescope (only the size of a cigar).

J. LIZARS, 101 *and* 107, *Buchanan Street, Glasgow.*
The Challenge dainty pocket plate camera. The Challenge quarter-plate model K. The Challenge roll film dayspool camera. The Challenge Model C. The Challenge Junior B dayspool camera, etc. The Challenge magazine cameras, stereoscopes, and Russian iron lantern, etc.

MACKENZIE AND CO., 210, *Old Dumbarton Road, Glasgow.*
The Mackenzie Wishart patent daylight slide and envelopes.

MARION AND CO., LTD., 22 *and* 23, *Soho Square, London, W.*
The Soho, a reflex camera for all-round purposes, made in quarter-plate, 5 × 4, postcard, and half-plate sizes. The Dainty reflex, for plates or film packs, 3½ × 2½in., very suitable for ladies.

THE MIDLAND CAMERA CO., LTD., *Slaney Street, Birmingham.*
The M.C.C. enlarging trestle—a table to carry easel and enlarger, and fitted with a cupboard. The M.C.C. enlarging easel. The M.C.C. vapour spirit lamp. The M.C.C. pocket electric darkroom lamp.

NEWMAN AND GUARDIA, LTD., 17 *and* 18, *Rathbone Place, Oxford Street, London, W.*
The Sibyl pocket camera. The N. and G. square reflector camera. The N. and G. Universal camera. The N. and G. De Luxe camera. The Nydia folding camera.

OZOBROME, LTD., 122, *Allcroft Road, Kentish Town, London N.W.*
Ozobrome outfits, for half or whole-plate pictures.

JULES RICHARD, 23A, *Albemarle Street, Piccadilly, London, W.*
The Verascope and Glyphoscope stereoscopic cameras. The Taxiphote, a special cabinet stereoscope. Stereoscopes of simpler forms. Stereoscopic transparencies of topical events, and views from different parts of the world.

ROSS, LTD., *Bond Street, London, W. Cockspur Street, London, S.W.*

The Ross Panros focal plane camera, the Ross Reflex camera (also made in a special small model for plates $3\frac{1}{2} \times 2\frac{1}{2}$), the Century portable extension camera, Homocentric lenses for all purposes, Ross-Zeiss Tessar lenses, telephotographic combinations, telescopes, race, and field glasses and opera glasses.

SELFRIDGE AND CO., LTD., *Oxford Street, London, W.*

Kodaks in various patterns and sizes. Kodak developing machines for daylight use. Brownie outfits. The Audley, Cadenza, and Raleigh albums. Automatic closing metal tripods. Enlarging lanterns. Developing and printing outfits.

THE SERVICE CO., LTD., *292 and 293, High Holborn, London, W.C*

The Service Co.'s Countess 21 folding pocket camera, taking pictures $1\frac{3}{4} \times 2\frac{3}{8}$ complete with lens and shutter, three dark slides, developing and printing outfit.

JAMES A. SINCLAIR AND CO., LTD., 54, *Haymarket, London, W.*

Cameras of various kinds. Aneroids. The Darkroom watch. The Photographic compass. Scales and weights. Collapsable lens hoods. Dry mounting machines. Optical lanterns. The Electra flash lamps. Dark room radiators. Folding pocket brush and comb. Pocket tool scissors.

A. E. STALEY AND CO., 19, *Thavies Inn, Holborn Circus London, E.C.*

The Nettel, Kibitz, and Royal Reflex cameras. The Ewon arc lamp. The Euryplan lenses. The Staley Wheeler convertible telephoto lens. The Sandco prism glasses, opera glasses, etc

STANDA, LTD., 124, *Holborn, London, E.C.*

Standa daylight developing tanks, made in various sizes to suit the size of plate used. The Standa roll film developing tanks. Standa developing powders for use with all machines.

THE LONDON STEREOSCOPIC AND PHOTOGRAPHIC CO., LTD., 106 *and* 108, *Regent Street, London, W.*

The Vesca pocket camera, no larger than a cigarette case. Prisma opera glasses. Prisma binoculars. A new pattern of print trimmer. Aluminium tripods. Special patterns of magazine cameras.

TAYLOR, TAYLOR AND HOBSON, LTD., *Stoughton Street Works Leicester.*

The Cooke lens in any one of the eight series, from f/3.5 to f/8, in which it is supplied.

THE TELLA CAMERA CO., 68, *High Holborn, London, W.C.*

The Tiny Tella—a very small reflex camera, with Goerz, Syntor, or other suitable lens. The Ticka watch camera, in little velvet case.

THE THORNTON-PICKARD MANUFACTURING CO., LTD., *Altrincham.*

Amongst stand cameras, the Tribune for juveniles, the College for students and youthful photographers, the Imperial complete set. Hand cameras—the Wafer, the Weenie, the Safety.

THE WATKINS METER CO., *Imperial Mills, Hereford.*

The Bee exposure meter for all-round work. The Focal plane meter for snap shot work. The Queen Bee meter. The Watkins time thermometer. The Watkins time tank. Exposure notes. The Watkins Manual.

W. WATSON AND SONS, LTD., 313, *High Holborn, London, W.C.*

The Argus reflex camera. The Vril camera. The Dainty camera. The Bebe camera. Holostigmat lenses. The De Luxe enlarging lantern. Daylight enlargers. Watson's combined finder and telemeter. The Kinora hand kinematograph. The Antinous shutter release.

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The Westminster enlarging easel, which can also be used as a lantern stand and reading desk. Machines for developing films and plates. Vest pocket cameras. Albums. Sets of lantern slides suitable for children's parties. Enlarging apparatus. Optical lanterns.

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The Wratten darkroom lamps, with safe lights suitable for various purposes, the Wratten K orthochromatic filters. "The Photography of Coloured Objects," Dr. Mees's work on orthochromatic photography.

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The Dainty series of pocket cameras (a) for films $1\frac{5}{8} \times 2\frac{1}{2}$, (b) for plates $1\frac{3}{4} \times 2\frac{5}{16}$ (the Vest Pocket Camera), and the Tiny Stereo Film Camera for plates or roll films $1\frac{3}{4} \times 4\frac{1}{4}$in.

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GREAT BRITAIN.	£ s. d.	ABROAD.	s. d.
Twelve Months	6 6	Twelve Months	10 10
Six Months	3 3	Six Months ..	5 5
Three Months ..	1 8	Three Months..	2 9
Single Copy	1½	Single Copy ..	2½

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Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

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PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

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PAYMENTS.—Articles and illustrations are paid for on acceptance.

INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.

The Sculptures of Chartres Cathedral

A Photographic Record by Margaret and Ernest Marriage.

The handsome volume by Mr. and Mrs. Marriage which has just been published by the Cambridge University Press* is practically a photographic work, as the letterpress does no more than supply a few introductory remarks on the subject of the sculptures and their symbolic meanings, the photographs being left to speak for themselves as to the artistic merit of the originals they depict. In so far as it has accomplished a task set Mr. Ernest Marriage, they do this most effectively. The aim of the work, the authors tell us, is "to make the resources of modern photography to illustrate the sculptures in a more literal manner than has been attempted," and that aim certainly has been attained.

The photographer who comes to this task to get ideas as to the sculptures of Chartres Cathedral as a rule has the choice of being certain beforehand what will and what will not be seen. Effects of light and shade, the presence of a mass of columns and arches of a similar tone beyond, all the peculiarities of the architectural photograph as it figures in Class D at the exhibitions, are passed by. The authors may have such prints obtained in Chartres Cathedral, but they are not required for the present purpose. Their aim is to record and show as faithfully and as distinctly as possible a large and well-selected collection of the sculptures. He has chosen the best view points for this purpose, for that purpose has always been not to make a picture by Marriage, but a delineation of the work of the mediæval artist. Thanks largely to the fine photographic lens of which Mr. Marriage is such a master, he has managed to accomplish his task with a success which leads us to hope that he will turn his attention to other buildings in the same way.

There is ample justification for the selection of Chartres Cathedral for such a record. Architecturally, as Mr. Marriage points out, it is often judged to be the finest in France. Moreover, the sculpture there is "not a mere accessory, but an ornament added as an afterthought; it is an integral part of the architecture, whose position and effect have been part of the plan, and it represents, as that of no other building does, the highest point reached by mediæval art in the thirteenth century. Nowhere else in France, in fact, perhaps is there to be found so complete an expression of mediæval symbolism."



HEAD OF A QUEEN: WEST FRONT, CHARTRES CATHEDRAL.
From "The Sculptures of Chartres Cathedral," by Margaret and Ernest Marriage.

As we have said, the text is elucidatory. It is adequate without ever being excessive. The weathering of much of the work has made it necessary at times for its subject to be explained, and this has been done briefly and to the point. The reproductions are in all cases excellent, and it is noteworthy that although they are in half-tone the highly glazed paper usually employed has been avoided, and the book in consequence can be read quite comfortably. By the courtesy of the publishers, we are able this week to reproduce a typical example of the authors' work—a "Head of a Queen," from the door of the west front.

N.B.—The form which is given this week on page xxiv. will enable any non-photographic reader into whose hands this copy of *Photography and Focus* may fall to obtain expert suggestions and advice as to Christmas presents of photographic apparatus suitable for an amateur photographer.

* "The Sculptures of Chartres Cathedral," text in English and French, by Margaret and Ernest Marriage. Royal 8vo, with 120 plates. Price 12s. nett. Cambridge University Press.



IN MY NEIGHBOUR'S PERGOLA. BY DR. E. G. BOON.

No. 11 at the Exhibition of the Royal Photographic Society.



OLD

DUTCH.

BY P. F. STORRS.

Awarded the

Bronze Plaque

in the

Advanced

Workers'

Competition

just closed.



Christmas Presents for Amateur Photographers.

Our Offer to Non-photographic Readers. What Shall I Give? The Problem of the Moment.

YOU have a friend, an amateur photographer, to whom you wish to give some present which will not only be a token of goodwill, but will be of some real use. Why not give some piece of photographic apparatus?

"I don't know anything about photography, and might choose something that was unsuitable or of no value."

True; we are all liable to do that when venturing on unknown ground. But the ground is familiar enough to the staff of *Photography and Focus*, and if you fill in the form on page xxiv. as well as you can and send it as directed with a stamped addressed envelope for reply, you can obtain expert advice as to one or two things likely to be suitable and costing approximately what you are prepared to spend. You will also be told where they are to be obtained. The replies will be posted, as far as possible, the same day they are received, so that if you act at once there will be plenty of time to decide finally after getting our selection whether it is or is not likely to fill the bill.

Be as explicit as you can in filling up the form. We make no charge for the advice, but if you decide to get what we recommended, and state when buying it that you got it at our suggestion, you help us quite as much as we have helped you.

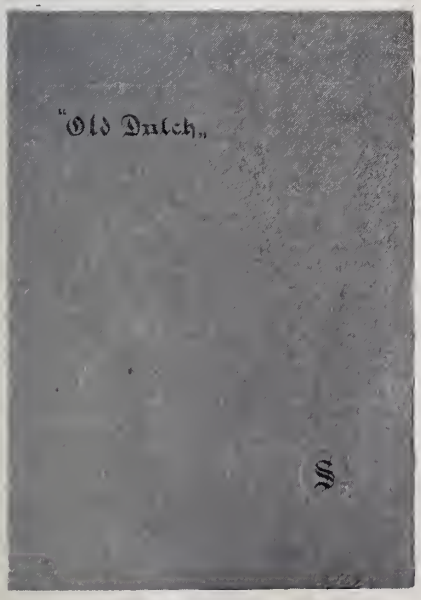
A Competition Print and Its Setting.

THE illustration by Mr. Storrs, which we reproduce on the opposite page, although, as it stands, it is a fine and effective picture, does not give our readers a complete idea of the way in which this competitor, having got his jewel, gave it a setting worthy of it. As the mounted print was one of the best examples of its kind that we have seen, we reproduce below the outside of the mount, and the mount open showing the picture within, that those who are content to put their prints on plain cards, or on stock size commercial mounts, may see how some competitors take thought to display their photographs to the best possible advantage.

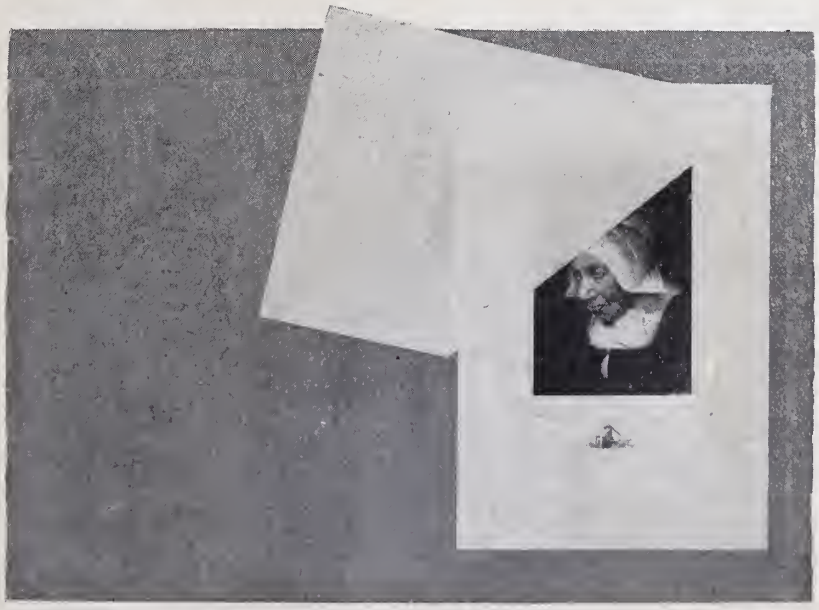
Externally, the mount appears as a stout rough brown card, with "dekkle" edges, with two "plate marks" on it. On the upper one of these is neatly written the title of the picture, "Old Dutch," in Gothic characters. On the lower one, which is sma'l and circular, is the photographer's initial, "S.," in lettering to match. Opening the cover, the left-hand page is seen to be blank. The right-hand has a large plate mark, within which the print itself is mounted, by its top edge only, with a sheet of tissue paper over it to keep it clean. Although, as the description is read, all this may seem to be elaborate, it is actually carried out very simply and in good taste, and is quite without any suggestion of over effort.

Coming to the print itself, it is a particularly fine rich sulphide toned bromide print on a smooth stout cream paper. The little Dutch scene vignetted below the picture gives a suggestion of the locality in which the main subject was secured. Both are surrounded by a plate mark, within which the title and the name of the photographer have been written lightly, and in pencil, so as not to attract undue attention by their harshness.

On the whole, the result, as we have said, is excellent, We do not suggest that other competitors should copy what Mr. Storrs has done; it certainly would not gain them an award. But we do suggest that his example might well be followed by giving to each print individual thought and attention, to make sure that it loses nothing by the way in which it is displayed.



The outside of the mount.



The mount open, showing the internal design.

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

The prints published below are selected from those sent in to our competitions which have just closed. We cannot undertake to forward prints to "The Bandit" for criticism here or by post. The conditions under which alone prints are criticised will be found each week under the heading "Queries and Replies."

IN reading one of the many newspaper reports of Mr. Bernard Shaw's lecture at the Salon, I came across the following passage: "I think nothing is more extraordinary than to look round at any photographic exhibition, and find to how very small an extent photographers are influenced by the general march of art outside. Of late years, however, they have begun to influence one another. . ." The accusation—though perhaps it is rather a statement than positively an accusation—is true enough. Photographic shows are getting into a rut, or a set of ruts simply because there exist some dozen or so really original photographers, and all the other photographers are, insensibly perhaps, imitating them. If we are cribbing the mannerisms of painters too much—as some critics have asserted—it is not because we have gone and studied their works, but because we have studied the photographs of photographers who have studied the paintings.

It strikes me that an odd example of the slowness with which photographers have allowed themselves to be inspired by the style and motifs of brush and pencil artists may be perceived in the comparative rarity of humorous subjects treated by the camera. For years and years we have seen funny paintings, funny sketches in "Punch," and so on; but the number of deliberately funny photographs which had been made was until recently negligible. Humour had been "worked" by the older arts for centuries, yet it seemed hardly ever to dawn on photographers that it might be worked by photography.

Within the last five years or so humorous subjects have been attempted rather more frequently by photographers. Was this because they had at last begun to pay attention to the pages of "Punch," and the Hassall's and Dudley Hardys on the hoardings? Not a bit of it! It was because they had begun to copy other photographers, namely, the picture postcard makers.



Posing. *By J. Wood*



"A Fair Cop." *By H. Farms.*

And, unless my line of reasoning is wholly astray, the creation of the funny photographic picture postcard was not due to the influence of funny pen and pencil artists. It was due to the uprising of a boom in celebrities' portraits—and, amongst others, to the portraits of celebrated comedians.

When you see, for example, one of those vulgar picture postcards which represents a man kissing a girl in a lane, its evolution is not, I claim, traceable to, say, a "Punch" drawing of a man kissing a girl in a lane. It is due to the favourable sale gained by a previous photograph of a kissing scene in some favourite musical comedy. The previous picture postcard was not labelled "Lovers' Lane," or any such indefinite title; it was labelled "Miss Gertie Smiler and Mr. Clifford Jolliboy in the Kissing Duet."

The actual osculation may or may not have interested the purchasers of the postcard; what did definitely cause it to sell was the fact that it represented certain theatrical stars in a certain play. From this developed the purely "fancy" comic photograph, which represents ordinary mortals, non-theatrical, attitudinising in a silly or sentimental or farcical manner.

Here are two prints which serve to illustrate my point—"A Fair Cop" and "The Poacher, Caught." Both are

funny, or intended to be funny; and both, I opine, were inspired not by any long tradition of humorous art, but by that comparatively recent phenomenon—the picture postcard.

"What does it matter how they were inspired?" someone asks. The question is legitimate; for I see that I have written so large a proportion of my article in a theoretical strain that I may be accused of making much ado about nothing. But in such examples as these two prints I venture to hold that an enquiry into their origin will be valuable, for it will throw light on their failure, or, at any rate, will explain why they are not more successful.

Cast your eye over the paragraphs preceding, and you will see that, traced to their source, comic pictures of this type are founded on stage traditions. "A Fair Cop" is, at bottom, a stage tableau, not an excerpt from life. I blame it, too, because it is an imitation of an imitation. It is not even a direct imitation of a stage picture; it is an imitation of the picture postcards which were primarily inspired by pictures of stage pictures.

And you will observe, if you condescend to inspect the crowded windows of postcard shops, that when you see a picture in which there is a figure whose expression or attitude has some humorous appeal, the figure is almost always labelled "Edmund Payne," or "Huntley Wright," or some such person. Analysing your sympathetic amusement at the picture, you will find that if you did not know who was the person represented you would hardly be interested at all, and hardly amused at all. The appeal, in short, is personal; it is only indirectly humorous.

That is why "A Fair Cop" does not amuse me, while it probably does—quite reasonably—amuse the trio concerned. It is a stage play (and is handicapped by being silent).



The Poacher Caught. *By Jabez Neve.*



Only a Dream. *By C. S. Atkinson.*

Outsiders might be interested if they knew or had heard of the players. People who do know the players most likely *are* interested. There you have the weakness of these funny genre tableaux, in a nutshell. "Dress her up as Juliet, and photograph her, and she's still Miss Wilkins," as Shaw observed, in another passage of his lecture.

"The Poacher, Caught," suffers even more from artificiality than "A Fair Cop." It creates, in the observer, an intense camera-consciousness; he reconstructs the whole business, and mentally he includes in this picture the photographer and his apparatus.—Fatal, of course. But—and this is significant—if the gamekeeper had been Mr. Hawtrey and the poacher, say, Weedon Grossmith, and the background a palpable stage setting, we should not have been camera-conscious at all.

Simply because the whole thing would then have been so obviously artificial that the extra artificiality of its having been photographed would have been overlooked. Photography has to go as straight to nature as it can. If funny photography is to be a success it must be natural and spontaneous.

The print called "Posing" is the only one I have been able to find which approaches anywhere near this ideal. I don't say that it causes peals of laughter. I don't think its maker expects anything of the sort. But it certainly shows quiet humour, and that this is deliberate is proved by the title. This little quadruped, clumsy and a shade pathetic in its long-legged juvenility, stands so woodenly against the sky-line that its posture probably raised a smile in the passer-by. Why not register, by the camera, the perfectly naïve posture that raised a smile? No sooner said than done. The shutter clicked, and the plate had caught the impression.

Observe, though, that the humour was not in the bullock, but in the photographer who saw the bullock's humorousness. Observe, too (and this is more important), that the photographer did not force the bullock to be humorous. He did not make it wear a top hat or chase a policeman or sit down on a basket of eggs. He let it be itself; and the result, as I say, seems to me, if not very tremendous, at least to be on right lines.

Finally I reproduce another of the picture postcard genus, entitled "Only a Dream." There is a good deal of originality in this; the extraction of an entire set of teeth at one wrench might be extremely droll, maybe, at a music hall. In the picture it lacks the verve which trained actors would have imparted to it. There is no struggle apparent, no surprise. The patient, I suppose, is "under gas"; still, the dentist might have looked either more strenuous or more diabolical.

Again I guess that this is funnier to the people concerned than to strangers. The really successful humorous photographs, when they appear, will clearly have to avoid that failing. A joke which cannot be appreciated unless you are acquainted with the jokers will not travel far, nor the man who makes it.

"Gems of Architecture." By E. R. Bull.

A Review of a Fine Series of Architectural Prints and Slides.

THOSE who have seen many photographic exhibitions will be familiar with the very fine architectural work of Mr. Edgar R. Bull, which has often received recognition at the hands of the judges. Mr. Bull is now putting upon the market a series of lantern slides from the best of his negatives, under the title of "Gems of Architecture," two of which, as a fair sample of the rest, we reproduce this week on this page and the opposite one. Those who wish to secure copies of any of Mr. Bull's photographs, either in the form of prints or of lantern slides, would do well to send a postcard to him—his address is 7, Ballina Street, Honor Oak Park, London, S.E.—for a copy of his price list. Quite apart from the interest of their subjects, they are worth getting as examples of fine technique towards which to aim.

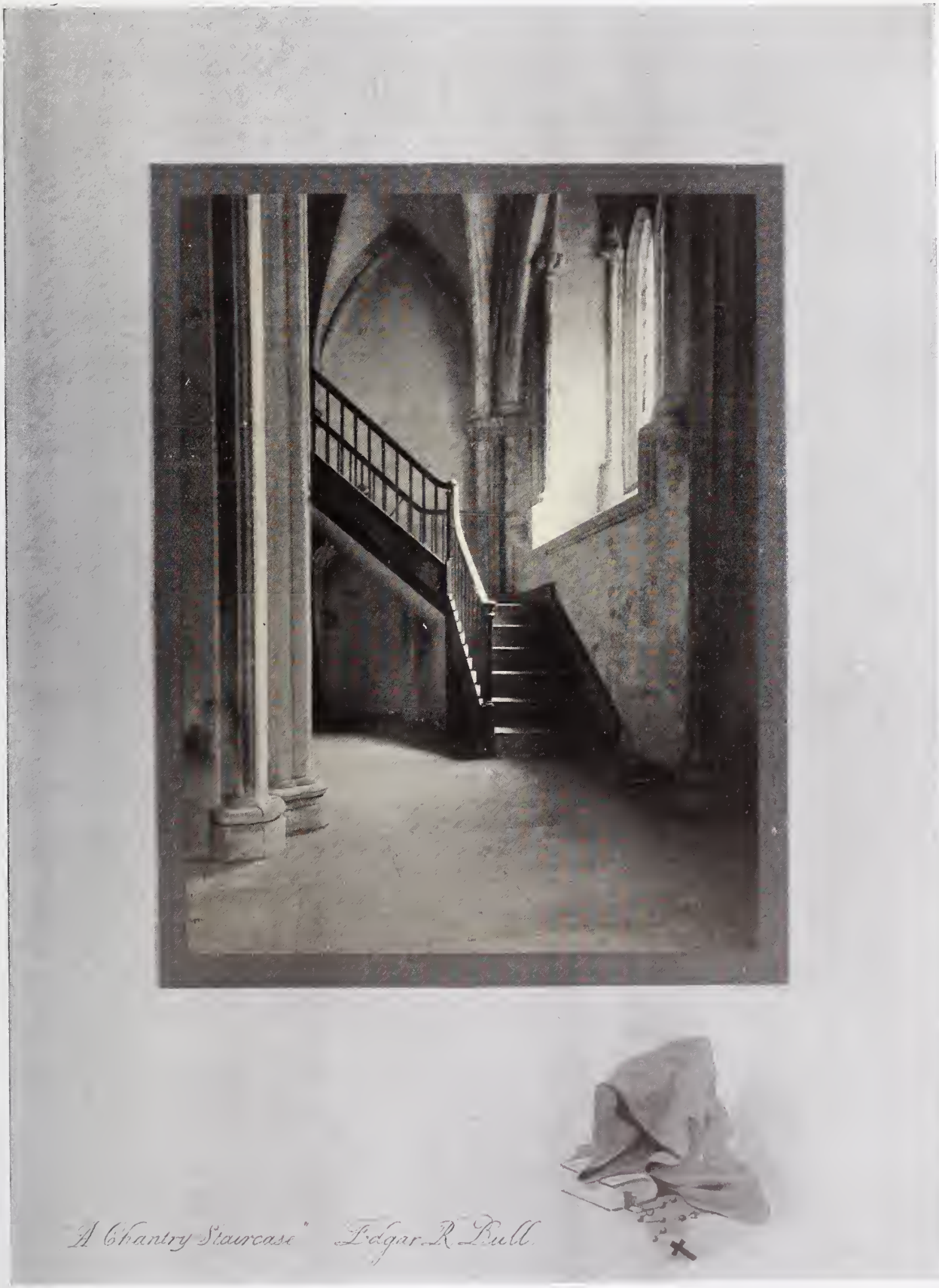


Across the Apse, Norwich Cathedral. *By Edgar R. Bull.*

The function of the camera recorder of work of architect or sculptor is one which it fulfils, perhaps, more adequately than any other. That function is twofold, and, curiously enough, we are concerned with both of its branches this week. On page 476 is a review of the fine work by Mr. and Mrs. Marriage on Chartres Cathedral, in which the individuality of the photographer has been as far as possible suppressed. It is not altogether possible, as Mr. Marriage's telephotographic technique stands by itself; but at least he uses it for no other purpose than to give us the best possible idea of the sculptures which form his subject. In Mr. Bull's work, on the other hand, we are not concerned with details of doors and capitals, but rather with the effects of light and shade that have been secured by the design of the main structures themselves. There is room here for a great deal of personal skill and taste, and to many this side of architectural photography will appeal more strongly than what may be classified as record work. On the other hand, we are not prepared to admit that work of this kind is any more or less useful than work of the other. Both classes have their sphere of utility, and we should like to see every building of any real artistic significance in the country recorded by both methods.

If the amateur is interested in architectural photography, he will find in this country an ample field for his labours, in the many fine cathedrals and churches, to say nothing of examples of domestic architecture. In this connection it might be well to add a word of caution as to the selection of a point of sight. Many otherwise good examples of architectural photography fail, because the standpoint selected for the camera is one from which the architect never intended his work to be seen, and from which, ordinarily, it is not seen. This is particularly the case when some unusually high position is selected, perhaps on account of intervening objects. The chairs in the nave of a cathedral, for example, may be very much in the way, but it is better to take the nave with the camera four or five feet from the ground, raising the lens if need be, than to get to some elevated point, from which it is true the chairs are well below us, but the whole effect becomes only too plainly a bird's-eye view of its subject.

Needless to say, such work as that of Mr. Bull is free from mistakes of this kind, and as far as we have seen (and we have seen a good deal), it is a skilful, reverent, and adequate record of the masterpieces of architecture with which it deals.



"A Chantry Staircase" Edgar R. Bull

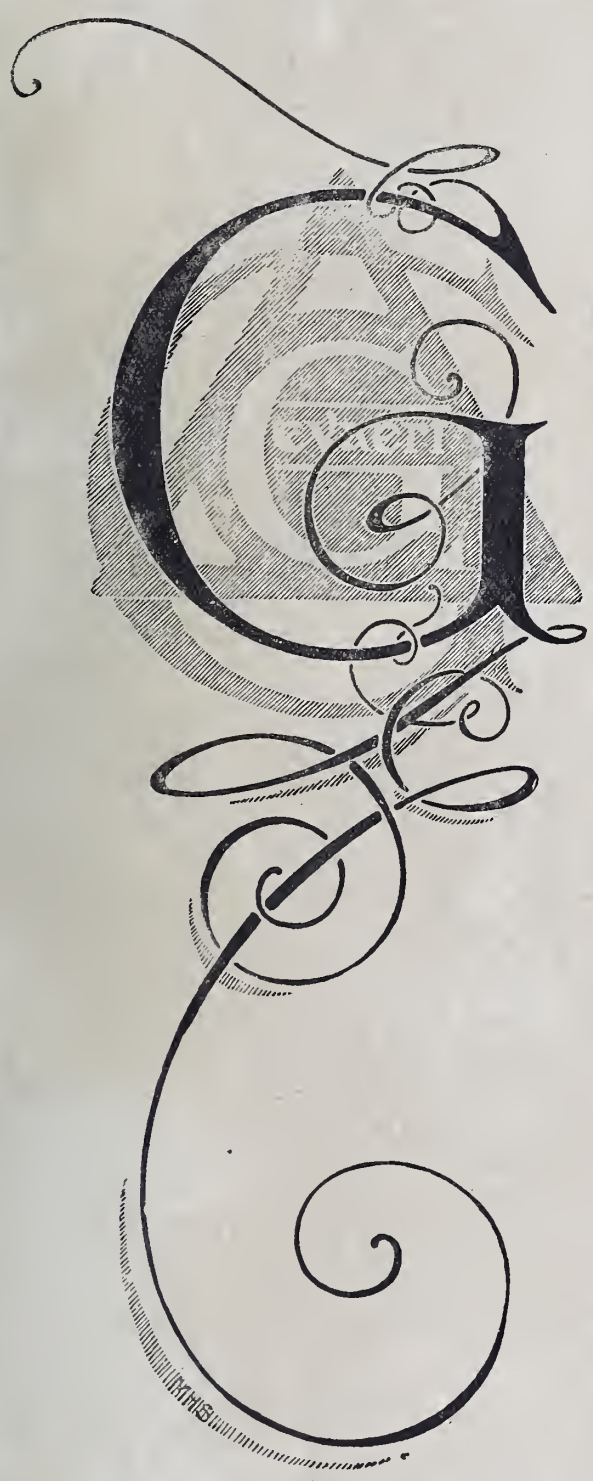
From "Gems of Architecture" reviewed on the opposite page.



THE EASTERN GATE.

No. 160 at the Exhibition of the Royal Photographic Society.

BY ALEX KEIGHLEY



evaert

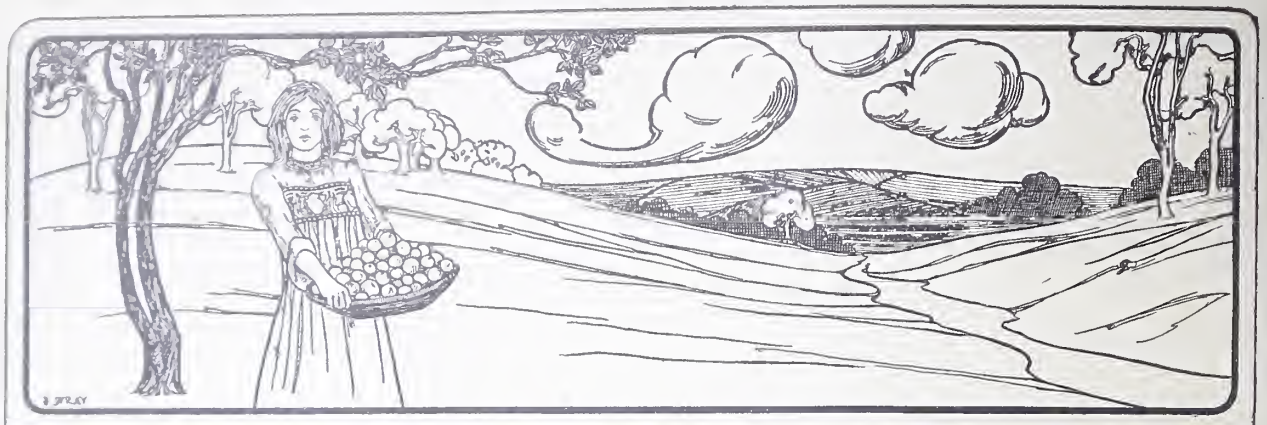
Bromide

"When a photographer prints from his negative through a hatching . . . his work immediately becomes what bric-a-brac dealers call a curio."—BERNARD SHAW.

JUDGING from his frequent remarks on the art of photography, it is clear that Mr. George Bernard Shaw admires pure photography and abhors fakes. On another occasion he said: "There are the pigment processes, in which most amusing games can be played with a kettle of hot water. . . . The photographer can if he likes become a forger of painters' work." There is, however, no need to imitate the painter's manner if one has a good negative and a perfect paper such as Gevaert Bromide, with which it is possible to get the best of pictures *direct* and with no trouble—pictures with rich shadows, delicate details and half tones, and brilliant highlights—perfect pictures. Please write to us for list of grades.

Gevaert LIMITED

Manufacturers of Photographic Papers, 26 & 27, Farringdon Street, London, E.C.



THE·LATEST·IN·APPARATUS·&·MATERIAL.

A New Grade of Seltona Paper. Cream Antique.

AS our readers are aware Seltona is the self-toning collodion P.O.P. manufactured by the Leto Photo-Materials Co., Ltd., of Roman Wall House, 1, Crutched Friars, London, E.C., a paper which of late years has acquired a very great popularity amongst amateur photographers—a popularity for which its uniformly excellent quality is quite sufficient to account. An addition to the list of grades in which Seltona is supplied has just been made under the name of Cream Antique, a paper which we have recently had an opportunity of trying. It is supplied at the same price as the other Seltona papers, and the manipulation, which consists simply of fixing in plain hypo and washing, is also identical.

Cream Antique Seltona is at present only issued in paper, but boardoids and postcards with this surface are announced to be ready shortly. The surface is a very agreeable one, matt, but not too rough to do justice to negatives with plenty of detail, while the cream colour of the paper harmonises excellently with the fine brown tones that are got so readily with Seltona.

The Edwards Transparency "M.G." (Matte Ground) Plates

THE Leto Photo-Materials Co., Ltd., the proprietors of the business of B. J. Edwards and Co., sends us for trial some samples of a new Edwards plate, which is being put upon the market under the title which is printed above. That title is almost of itself a sufficient description of the plates, which are, to all intents and purposes, lantern slide plates on glass which has received a coating which gives it a ground-glass effect. For lantern slide purposes such a "matte ground" is not required, but when the plates are to be used for making transparencies, it is a great advantage, and does away with all need for backing up with ground glass. The plates are particularly suitable for the purpose of making stereoscopic transparencies, and we have no doubt that they will become very popular for that purpose.

The manipulation is precisely the same as for the ordinary Edwards lantern plates. The formulæ given include a pyro-ammonia developer for warm tones, and hydrokinone and amidol developers for black tones. The ground-glass or matt appearance can be noted while the transparencies are wet, but they have to be dried to secure the full matte effect. Pencil work may be done on the film, which has a tooth which will take the lead without any application of retouching medium, and if required the pencil work can be removed with indiarubber in the ordinary way. Moreover, as the grain is fine enough to allow of transparencies on these plates being used for enlarging, it is very likely that they will find a good many users who will employ them in enlarged negative making, owing to the facility with which they take the pencil.

One other point worth noting is that if at any time a piece of very fine ground-glass is required for focussing, and is not at hand, one of these plates fixed out, washed and dried, makes an excellent substitute. We have not tried it, but we do not doubt that a spoiled transparency on one of the plates, with its image removed with ferricyanide and hypo, would answer equally well.

The Edwards "Matte Ground" transparency plates are supplied at the same prices as ordinary plates. They are admirably suited for their special purpose.

The Wellcome Photographic Exposure Record and Diary.

WE remember being present at an outing of a photographic society at which a discussion arose as to the practical advantage of carrying a note-book and making an entry therein each time a plate was exposed; and when we expressed some doubt as to the extent to which this excellent practice was followed, four members promptly produced exposure notebooks from their pockets, and all four books were in the familiar green covers which mark the Wellcome annual volume. Certainly no more handy pocket book for a photographer is to be found than the Wellcome Photographic Exposure Record and Diary, whether its owner determines to record his exposures or not.

The volume for 1910 has just made its appearance. In it the "Tabloid" system which Messrs. Burroughs, Wellcome, and Co. have made so popular with chemicals is carried into technical literature; the compactness and reliability of the one are strictly paralleled in the other. The book tells us just what we need to know about each process likely to be used by the amateur photographer, and if, in addition, it recommends the use of tabloid products, we are by no means certain that that is not as serviceable a piece of advice as any other in the book. At least it tells for accuracy and —awful word—dependability.

Perhaps the best way to show its utility is to quote Messrs. Burroughs, Wellcome, and Co.'s summary of its contents: An exposure calculator, "factors for plates and bromide papers, diary, memoranda, and exposure record pages, developers for all purposes, development by all methods, and reduction, contact printing by artificial light, toners and lantern slide making, intensifiers and intensification, reducers,

For SPEED

Unsurpassed for Perfect Definition at Full Aperture.

GOERZ LENSES



CAN BE FITTED TO ANY CAMERA.

Send for Booklet No. 10:

"THE GOERZ LENS AND ITS USE,"

TO

THE C. P. GOERZ OPTICAL WORKS, LTD.,

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toning, ozobrome process, colours by simple development, colour effects by staining, speeds of bromide papers, improved methods of obtaining wide variations in colour of sulphide-toned prints, illustrations showing extensive range of colours obtainable on lantern slides by simple development, latest data relative to time development at different temperatures."

The notebook is issued in three editions for the convenience of photographers in different parts of the world: (1) Northern Hemisphere generally (bound in light green); (2) Southern Hemisphere and Tropics (bound in dark green); and (3) United States of America (bound in red). Its price in the British Isles is 1s.

Johnson & Sons' Scales Brand Flash Powder.

THE latest addition to Messrs. Johnson and Sons' list of preparations for the photographer is a flash powder, for which they claim that it gives "a brilliant flash, a minimum of smoke, and a total freedom from the dust which hitherto has been one of the great drawbacks to the use of flash powder." It is put up in sixpenny and in half-crown boxes—the latter for professional purposes where a very large area is to be illuminated; the former will no doubt appeal to the amateur, who only uses flashlight for an occasional portrait or group.

The powder is sold sealed up in two tubes or cartridges, which in their turn are packed, with a strip of touch paper, in a little box, lined inside and out with metal foil. In order to use the powder the contents of both tubes are emptied into the box and are then well mixed by shaking. The method of packing preserves the powder from the action of the air, and renders it safer in transit. We found that this preparation gave a very powerful light, with a comparatively small quantity of smoke. We have no doubt that it will commend itself to a great many of our readers.

The Week's Meetings.

MONDAY, DECEMBER 13TH.

Worksop P.S. *Photography and Focus* Prize Slides.
South London P.S. "How to Make Lantern Slides." C. H. Oakden.
Bradford P.S. Thornton-Pickard Prize Lectures. R. Hesketh.
Marylebone C.C. "Holiday Photography." Dr. F. Thompson.
Preston C.C. "Photographic Facts and Fallacies." Burroughs-Wellcome.
Equitable P.S. "Enlarging and Sepia Toning." C. Hill.
Dundee & E. of S.P.A. "Large Prints from Small Negatives." W. F. Slater.
Southampton C.C. "Camera at Home." E. T. Holding.
Bowes Park & D.P.S. "Ozobrome Process." E. H. Down.
Derby P.S. Affiliation Slides.
Leek P.S. Autotype Co.'s Demonstration. T. Bradley.
Leeds C.C. "Wensleydale." G. Thistlewaite.
Canterbury C.C. "Paget Phosphate Papers." H. Philpot.
Cleveland C.C. Discussion Night.
Walsall P.S. "Artist's Views on the Subject." R. R. Carter.
Willesden Poly P.S. Carbon Process. W. Angold.
Cripplegate P.S. "Gum Platinum Process." M. Arbuthnot.
Scarborough P.S. Members' Night.
Oxford C.C. Lecture. J. H. Gear.
Colne C.C. Lecture. W. Spivey.
Wallasey A.P.S. Visit to Exhibition.
Mansfield C.C. Exhibition.
Dukinfield P.S. Conversazione.
Bridlington P.S. "Retouching." W. T. Harriott.

TUESDAY, DECEMBER 14TH.

Sheffield P.S. "The Optical Lantern." W. H. Stuhhs.
Leeds P.S. "Nature Notes with a Camera." R. Fortune.
Hackney P.S. "In Distant Lands." A. Raven-Friggs.
Liberal Border City C.C. "Holiday Ramhles with a P.C." R. S. E. Douglas.
Glasgow S.P.A. "Large Prints from Small Negatives." W. F. Slater.
Fernhead W.G.P.S. Lantern Night.
Neath P.S. Prize Slides.
Halifax C.C. "Retouching." J. Way.
Horwich Inst. A.P.S. "General Meeting.
Nelson C.C. Visit of Burnley Co-operative C.C.
Chiswick C.C. "Java—it's People and Temples." J. Sargent.
St. Helens C.C. "Gothic Architecture." H. R. Lacey.
Forest Gate C.C. "In Praise of the Fuzzy." E. Vasey.
Grantham P.S. "Ensyna." F. J. Stedman.
Royal. "Relation of Photography to Vision." F. W. E. Green.
Doncaster C.C. "Night Photography." A. H. Blake.
Otley & D.C. & A.S. "My Rambles in Upper Wharfedale." T. Ryder.
Blyth & D.C.C. "What can be done with a Hand Camera." Goerz.
Nelson P.S. L. & C.U. Print Portfolio.
Ashton-under-Lyne P.S. Dukinfield Exhihition.
Dukinfield P.S. Whist Drive.

WEDNESDAY, DECEMBER 15TH.

Glasgow & W. of Scotland A.P.A. *Photography and Focus* Prize Slides.
Wolverhampton P.S. "Marvels of Photography." H. Holcroft.
Sale P.S. "Control in Printing." W. Lowe.
G.E.R. Mech. Inst. "After Treatment of Negatives." H. W. Bennett.
Ealing P.S. Third Print Competition.
Dennistoun A.P.A. "Large Prints from Small Negatives." W. F. Slater.
Glasgow & W. of Scot. A.P.A. *Photography and Focus* Prize Slides.
Cowes C.C. Exhibition.
Rochdale A.P.S. "Wellington Plates and Papers." H. Wade.
Woodford P.S. "Development." E. Marriage.
Ilford P.S. "Enlarged Negatives." J. C. Wille.
South Suburban P.S. Intensification and Reduction.
Coventry P.C. "Photographic Facts and Fallacies." J. B. Stanley.
Sheffield F.S.P.S. "Norman Churches of Worksop." J. R. Wigfull.
Borough Poly. P.S. "Flashlight Photography." F. C. Hart.
Leicester & L.P.S. "With Car and Camera in N. Ireland." A. Marshall.
Balham C.C. "Enlarging." Aldrige and Stevens.

WEDNESDAY, DECEMBER 15TH (*continued*).

N. Middlesex P.S. Intensification and Reduction.
Croydon C.C. "Rambles in Sicily and Italy." W. Ashcroft.
Darwen P.A. "Pictorial Analysis and Synthesis." Rev. R. W. Berry.
Ashton-under-Lyne P.S. Committee Meeting.

THURSDAY, DECEMBER 16TH.

Edinburgh P.S. *Photography and Focus* Prize Slides.
Southend-on-Sea P.S. Exhibition.
Preston C.C. "Intensification and Reduction." A. Kinder.
Heaton & D.C.C. "Rambles in the Border Country." Dr. D. H. Stephens.
Longton & D.P.S. "Holiday and English Lakeland." R. Leech.
Glasgow E.P.A. "Large Prints from Small Negatives." W. F. Slater.
Burnley C.C. "Candle-light Development." W. de Welford.
Chelsea & D.P.S. "Control in Sulphide Toning." W. J. Eagle.
Edinburgh P.S. *Photography and Focus* Prize Slides.
Leigh P.S. "Genre and Figure Studies." T. L. Syms.
Optical Society. "Optical Properties of Precious Stones." B. J. Tully.
Leicester Lit. & P.S. Exhihition.
Batley & D.P.S. "Ozohrome Process." W. C. Womersley.
Borough of Tynemouth P.S. "Enlarged Negatives from Small Negatives.' W. Coats.
Rodley, Farsley C. & B.P.S. "Ensyna." T. Taylor.
Midlothian P.A. "Silhouette Photography." A. H. Baird.
Brunswick C.C. "Lantern Slides." M. Smith.
Rugby P.S. "Marine Photography." F. J. Mortimer.
Dublin C.C. "Midlands of England."
Coalville & D.P.S. "Constructive Criticism of R.P.S. Prints." J. W. Morgan.
Folkestone & D.C.C. "Holiday Snap-shots with Hand Camera." F. J. Curtis.
Small Heath P.S. Members' Lantern Night.
Richmond C.C. "Lakeland." A. H. Etherington.
Queen's Park A.P.A. "Paper Negatives." J. M'Kisack.
Wembley & Sudbury C.C. "Ensyna." F. Marshall.
Armley & Wortley P.S. "Basiliconthaumaturgical Views." J. F. Learoyd.
Cardiff Windsor P.S. "Gaslight Paper Toning." H. N. V. Wadenogen.
Liverpool A.P.A. Smoking Social.
Watford C.C. "Telephotography." E. Marriage.
Hull P.S. Annual Dinner.
Bolton C.C. "Slumming with a Hand Camera." K. F. Bishop.
Handsworth P.S. Prize Slides.

FRIDAY, DECEMBER 17TH.

Barrhead & D.A.A.C. "Large Prints from Small Negatives." W. F. Slater.
Beeston P. & A.C. "Making Lantern Slides." A. Black.
Birkenhead P.C. "Dovedale." J. Newburn.
Bromley C.C. "Joan of Arc." Rev. B. Pim.
Mill C.C. "Photographic Chemical Experiments." E. Cooper.
Lincoln A.P.S. Competitions.
Sutton P.C. "Elementary Art Principles for Photographers." E. M. Cope.
Plymouth P.S. Members' Lantern Eveniug.
Wakefield C.S. "A Trip to Brittany." A. E. Porter.
Borough Poly. P.S. "Development of the Negative." W. H. Spare.

MONDAY, DECEMBER 20TH.

Preston C.C. *Photography and Focus* Prize Slides.
South London P.S. 1909 Affiliation Prize Slides.
Bradford P.S. "Large Pictures from Small Negatives." H. Crossley.
Equitable P.S. Prize Slides.
Shettleston & D.C.C. "Large Prints from Small Negatives." W. F. Slater.
Colne C.C. "Wye Valley." G.W.R. Slides.
Scarborough & D.P.S. "Failures."
Catford & Forest Hill P.S. Monthly Competitions.
Walthamstow P.S. "Finishing the Lantern Slide." J. S. Fairfoull.
Cleveland C.C. "Phosphate Paper and Slides." W. de Welford.
Walsall P.S. "Photographic Facts and Fallacies." Burroughs-Wellcome.
Willesden Poly. P.S. Discussion Evening.
Ashington & D.C.C. "Trimming & Mounting." E. T. Rohson.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time

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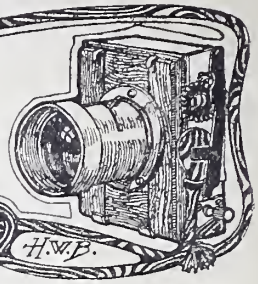
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About Some Methods of Self-portraiture.

By "Beta." Special to "Photography and Focus."



"PORTRAIT of the Artist"—how often we see that line in the catalogue of an art exhibition. Photographers have been accused of taking the brush artist as an example too often, and yet it is comparatively rarely that this description appears under a photographic portrait. It is difficult to understand why this should be so. Surely if the painter finds his own face and figure a suitable and manageable subject for his skill, the camera worker could far more easily secure excellent results by the same method. After all, the actual taking of the picture—that is to say, the opening and closing of the shutter—is a purely automatic operation, and the simplest mechanical means can quite well be employed for the purpose.

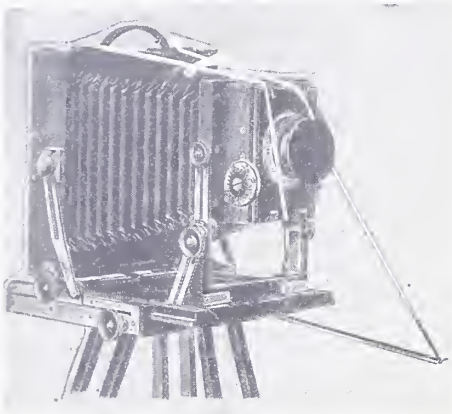


Fig. 1.

The writer was for many years confronted with the alternative of self-portraiture or none at all. The luxuries of charming and interesting models (at a fixed price per hour!) were out of range of purse and possibility alike. It is possible that a good many other workers are placed in the same position, and that the lack of willing and patient models alone prevents them from gaining experience and amusement from one of the most fascinating branches of camera work. Some brief description of the methods adopted for self-portraiture, under varying conditions, and with different classes of apparatus, may therefore be of interest.

There are several simple methods of operating at a distance that very popular form of shutter, the behind-lens roller blind. Perhaps the most effective is arranged by using the lens cap and one half of the shutter blind only. For this method the procedure is as follows: A thin rod is secured to the body of the camera in such a way that it projects four or five inches in front of the lens, but without obstructing the field of view. To the end of this rod is attached a thin rubber band, which is stretched on to the top of the lens cap, and secured there by a pin. The cap is prevented from being pulled off by the tension, by means of a length of cotton, which is carried from the cap to the back of the camera and secured there. The cord of the shutter blind is then pulled down sufficiently far to open the lens, without engaging with the clutch which ordinarily secures it in that position. Another length of cotton attached to the end of the shutter cord, and thence to the back of the camera, holds the shutter in place. The exposure is made by fixing a piece of touch paper between the two cords holding the lens cap and the shutter cord, and the length of paper left between these two determines the duration of exposure. It will be seen from the illustration (fig. 1) that the touch paper is placed behind the lens, in order to prevent the smoke obscuring its vision.

An alternative method the writer has employed with the roller blind shutter is the attachment of two lengths of cotton to the shutter cord (see fig. 2), which is pulled to its full length. The lens is thus covered, and the burning through of the first cotton brings the blind to the open position, where it is held by cotton No. 2, until this burning through also closes the shutter finally. The catch which holds the shutter at full stretch, and halfway, has to be removed or pinned back for this method, as the cottons must form the only release and brake on the action of the blind.

Fig. 3 shows a method of covering and uncovering the lens, which is capable of use with any form of camera. The diagram is sufficiently explanatory in itself, but it may be noted that the card or cloth which is suspended before the lens must be very carefully adjusted. It must be near enough to the lens to prevent the admission of any extraneous light, and yet must only touch the camera very lightly, or movement will result. The writer uses for this purpose a piece of card covered with black plush on the side nearest the camera. It is allowed actually to touch the lens front, and the pile thus forms an efficient light trap, while, being supported against the lens, there is no necessity for guide threads to prevent swaying. The card is raised by the sitter pulling the length of black thread by which it is supported in front of the lens, and the slight finger movement required for this is hardly discernible in the result. The cord is, of course, kept taut during exposure, and released quickly to cover the lens.

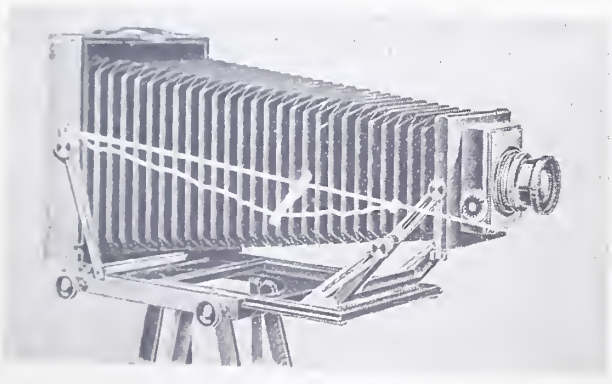


Fig. 2.

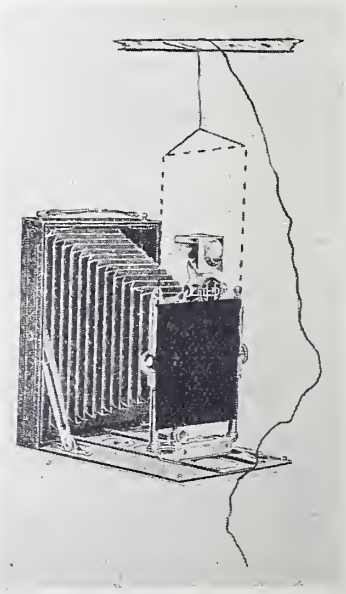


Fig. 3.

For Enlargements!

Wellington

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Platino Matt Surface:

Smooth, Rough, 'Xtra Rough, Special Thick, Cream Crayon 'Xtra Rough, Cream Crayon Thin Smooth, and Special Smooth.

Ordinary Surface:

Smooth, Rough, and Cream Crayon Rough.

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Thin and Thick.

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Cream and White.

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Rose, White, Mauve, and Contrasty White. Thick Rose and Thick Mauve.

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WELLINGTON & WARD,
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Beginners' Competition.

Open to all photographers who have never taken an award.

CLOSING DATE.—December 31st.

PRIZES.—First, a signed copy of "The Complete Photographer," a half-guinea work by Mr. Child Bayley, now in the third edition. Second, a free subscription to "Photography and Focus" for twelve months. One or more certificates of honourable mention will also be awarded.

Rules.

(1) Each competitor can send as many prints as he likes, but each print must bear on the back the coupon, published each week, the name and address of the sender, the title of the picture, and no other writing whatsoever.

(2) No print will be eligible that is larger than 5½ × 3½in. (postcard size) or 5 × 4in. Nor are mounted prints eligible.

(3) No handwork other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute, the editor shall have the right to call for the negative from which the entry purports to be a simple direct contact print.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce without payment, any of the prints sent in, winning or otherwise.

(6) All entries must be addressed "Beginners' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date at the very latest.

Advanced Workers' Print Competition.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates of honourable mention.

Rules.

(1) All photographs must be sent addressed "Advanced Workers' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., postage paid, to reach there not later than the first post on the closing date, and must contain a stamped addressed envelope or label (*not loose stamps*) if they are to be returned.

(2) Each photograph must be mounted, but not framed. Prints in slip-in mounts are not eligible. Each must bear on the back the name and address of the sender and the title of the picture. No letters or other communications must be enclosed with the prints. Every print must bear attached to its mount a coupon for the competition of the month, which will be found in each issue of the paper.

(3) Each photograph must be the work of the competitor as regards selection and arrangement of the subject, exposure and development of the negative, and printing, development or toning, and mounting of the print.

(4) The prints which are accompanied by stamped envelopes or labels will be criticised by post, and the editor shall have the right to reproduce any of the prints, winning or otherwise. The awards will be made a fortnight after the closing date.

(5) Awards may be increased or withheld at the absolute discretion of the judge, and in all cases of dispute the decision of the editor will be final.

(6) There is no restriction as to the eligibility, except as set forth in these rules, and except that the same negative must not be used more than once in the competition. That is to say, that a print from it once submitted, all further prints, however varied, are ineligible.

(7) Neither editor nor publishers of *Photography and Focus* shall be held in any way responsible for the safety of prints or for their return to the competitors.

(8) The sending of a print to the competition will be regarded as a declaration to the effect that it is eligible under these rules, and that the competitor agrees thereto.

CLOSING DATE.—December 31st.

Special Subject Competition. Open to all Readers.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates.

Rules.

(1) The subject of each photograph must be that announced for the particular competition.

(2) Each competitor can send as many prints as he likes, but each print must bear on the back the name and address of the sender, the title of the picture, and no other writing whatsoever. Each print must bear a coupon for the month, which will be found in each issue of the paper.

(3) No print must be mounted. No hand work other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute the editor shall have the right to call for the original negative from which the entry purports to be a simple direct contact print. Enlargements are not eligible.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce, without payment, any of the prints sent in.

(6) All entries must be addressed "Special Subject Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date.

SUBJECT AND CLOSING DATE.

An Indoor Portrait. Closes December 31st.

Greater Britain Competition. For Foreign and Colonial Readers.

Two Classes: (1) Beginners. (2) Advanced.

Prizes in each Class. First Prize, Silver Plaque. Second Prize, Bronze Plaque. Third Prize, a signed copy of "The Complete Photographer," a half-guinea work by Mr. Child Bayley (now in its third edition). Certificates of honourable mention will also be awarded.

Rules.

(1) Any amateur photographer may compete, provided (*a*) he resides in any part of the British Empire, beyond Europe, or (*b*) is a Briton living in any foreign country beyond Europe. If he has never taken an award in any photographic competition, he can enter in either class at his discretion. If he has taken an award, he must enter the "advanced" class.

(2) Each competitor can send as many prints as he likes, but each print must bear on the back the name and address of the sender, the title of the picture, the class entered, and no other writing whatsoever.

(3) No print will be eligible that is larger than 5½in. × 3½in (postcard size), or 5in. × 4in.

(4) No print must be mounted.

(5) No handwork other than simple spotting is permitted on negative or print, no shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute the Editor shall have the right to call for the original negative, from which the entry purports to be a simple direct contact print

(6) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(7) The Publishers of *Photography and Focus* reserve the right to reproduce, without payment, any of the prints sent in, winning or otherwise.

(8) All entries must be addressed "Greater Britain Competition," the Editor of *Photography and Focus*, 20, Tudor St., London, E.C., and must be delivered at that address by Saturday, April 30th, 1910.

CLOSING DATE —April 30th, 1910.

For particulars of the Doll Photograph Competition see page 421 in our issue for November 23.

Here and There.

OZOBROME.

Some tissues will be found to give more vigorous ozobromes than others, Dr. Bradley told the Southport Photographic Society; this was particularly the case with sea green, engraving black, and Egyptian black. It was absolutely essential that all the dishes and other vessels used for ozobrome should be scrupulously clean, or failure was almost certain. The old sensitising solution might be used for cleaning the dishes. The diluted sensitising solution rapidly deteriorated, so that it should not be used if it had been made up for more than twenty-four hours.

LINE DRAWINGS FROM PHOTOGRAPHS.

A very simple method of making these, given by Mr. W. Gamble in his book, "Line Photo-engraving," is to make the print on ferro-prussiate paper, such as is used for engineers' blue prints. This, after exposure under the negative, only requires washing in water to "fix" or make it permanent. After the drawing has been made, with a pen and Indian ink, the whole of the blue image can be removed by immersion in water containing a little washing soda. If the line drawing is to be photographed, there is no need to remove the blue image at all, as the blue comes out quite white, and only the black ink lines on it will show in the negative.

BACKGROUNDS FOR OUTDOOR PORTRAITS.

Who has not seen a family portrait taken by some enthusiastic amateur photographer, with the sitter posed against a brick wall, and, that nothing should be lost, the sitter's boots and a rain-water pipe figure in the composition. The inclusion of these details, writes Mr. E. T. Holding in the "Sinclair Handbook of Photography," does not infer so much a love of boots, bricks, and water pipes as a lack of forethought in arranging the picture. For open air portraiture, a plain background is almost a necessity; trees, bushes, ivy-covered walls, or fences are all more or less incongruous. The tint of the background may be anything from black to white, but, generally speaking, the lightest is the best—it will suit the subject—for the open air lighting of a face is very delicate, and against a dark background it is apt to look white and flat. Care should be taken that the folds or texture of the background are not discernible in the photograph, so that merely tone and not detail is rendered.

THE QUICK DRYING OF NEGATIVES.

An article in the "Journal de Rouen" on this subject recommends making a few pads of the size of the negatives to be dried, each pad consisting of four thicknesses of white filter paper. The negative, coming out of the last washing water, is drained, its back wiped, and laid down on one of the pads. Another is laid on the face of it, and pressed down evenly into contact with the hand. It is then removed by raising one corner, and the process repeated with dry pads. The pressure this second time may be greater than before. The negative, after the second application of the dry paper, has had most of its moisture removed, and will be found to dry very quickly.

COPYING ENGRAVINGS.

It stands to reason that an engraving that is to be photographed should be a clean one, not only free from marks or stains, but with the white of its paper quite white. Ordinary soiling may be removed by rubbing with the crumb of stale bread, but if the paper has become yellow with age, or has rusty-looking patches on its surface, some other method must be adopted. Mr. W. H. Borden, writing in the "Bulletin of Photography," says that in such cases he has found the following method work admirably. He has applied it to pictures, which, after the lapse of a year, show no signs of having been injured, so that it may presumably be used with perfect safety. The engraving is soaked for a few minutes in a solution of potassium carbonate, of a strength of one ounce to the pint of water, and then, without washing, is transferred to a dish containing a three per cent. solution of hydrogen peroxide. All traces of the stain disappear in a few minutes, and the engraving has the appearance of a new print. The operation is completed by a good washing in plain water.



THE OLD FARM. BY JOHN S. BARBOUR.

Awarded the Bronze Medal in the Special Subject Competition.

A USE FOR SPOILED ENLARGEMENTS.

Writing in the "Photo-Globe," Mr. H. N. Harrison points out that a bromide enlargement, exposed fully and developed until it looks decidedly darker than it should do, makes an excellent window transparency. Although it is better, of course, to make the enlargements specially for the purpose, as then not only can they be got to exactly the right depth, but can also be made of the size required to occupy the space that is to be filled; still enlargements which are of the right size, but are merely too strong in their contrasts to be framed and shown in the ordinary way as prints, may be employed for the purpose. The enlargements are best waxed, to make them translucent, as otherwise they will be found to obscure the light too much. The best mixture for the purpose is made of one part of Canada balsam and five parts of turpentine. This should be well brushed into the back, and the print pinned up to get quite dry. It is then bound up between two sheets of glass to protect it from injury, and put into the place assigned to it.



"The time has come, the Walrus said, to talk of many things."

I NOTICE that an expert classifies lantern slides into two divisions—the good and the indifferently bad. I should add at least two other classes—the superb and the atrocious. I admit that superb slides are rare, and, apart from those of my own make, are seldom seen, and then it is only fair to add that other people usually place my slides in the atrocious class. This hurts neither me nor the slides.

* * *

In another matter I entirely agree with the expert. He states that even little specks of dust, tiny pinholes, and finger marks (which are generally of considerable dimensions) become painfully evident when projected as part of a picture some *100ft. square*. That is so. A picture of that size contains 10,000 square feet, and the sheet to hold it would be large enough even for the great Bed of Ware. It would, in fact, be quite a quarter of an acre in extent. We all find it fatally easy to get blemishes on our slides about the width of this small o, do we not? By a rough calculation I find that such a blemish would appear on the expert's sheet magnified to a width equal to one and a half times the length of this page. It would certainly be "painfully evident." The finest retouching dots would be the size of oranges or cocoanuts, and a moderate sized finger mark would easily cover the wall of most lecture rooms. I doubt if even my slides would stand such magnification without loss of quality.

* * *

I turn from these abstruse calculations, with their amazing results, to record some pleasing occurrences that recently took place in merry Islington. At the top of a narrow common staircase in that cheerful neighbourhood were two rooms. One of these was let to one of those useful members of society who, for a small consideration, remove the surplus hair from our heads and faces; it was, in short, in the occupation of a barber, or snip. The other room formed the business premises of a photographer, who produced what were no doubt admirable portraits of his clients at the reasonable rate of one penny each.

* * *

Now it came to pass that the remover of hair found several reasons for complaint against the customers of the remover of the lens cap. These clients were so numerous that they filled the staircase, where they used to fill in the time waiting for their turn by regaling themselves with fried fish and the inevitable concomitant of taters. Between the bites they amused themselves by opening the door of the barber's saloon and shouting popular, but rude, remarks with reference to the cutting of hair. The barber admitted that he did not expect the patrons of a penny photograph to arrive in motor cars, but he was angered in that some rode up in egg boxes cunningly contrived to run upon wheels. Moreover, so dense was the concourse of fish devourers on the stairs, that gentlemen in urgent need of a shave were unable to make their way to the barber's chair. Wherefore the razors were whetted in vain, and the lather dried in the pots.

* * *

The photographer, anxious to continue his laudable work of immortalising the youths and maidens of Islington at one penny per immortalisation, took unto himself a sort of flunkey as controller of staircase conduct. This gentleman did his best, going so far, on more than one occasion, as to 'accommodate" some of the unruly visitors. This accommodation was achieved, as he explained, not with a stick, but with his hands; and no doubt this additional service was included without extra charge with the penny portrait. But it was all in vain. Once more photography had proved itself a horrible nuisance, and in the end the penny portraitist had to migrate, the fishbones were swept from the staircase, the wheeled egg boxes ceased to roll up to the portal, and the barber went on shaving.

* * *

All this is of such a frivolous and unimproving nature that I am fain to counterbalance it with some valuable information gleaned from an article on "Work with a pinhole." Although a pin-hole is not so "powerful" as a lens, I have known quite a small one lift a heavy man suddenly six feet in the air. The article does not deal with this kind of work, which is mainly carried out by callous and inconsiderate boys, but to the wonderful photographic work of which a pin-hole is capable. For example, I learn that a pin-hole is *the* thing for architectural photographs, as it is so difficult to secure detail with a lens. We may have been under the foolish impression that some lenses were quite capable of giving detail, but this is only because we have not discarded our Zeiss anastigmat in favour of a hole poked through a bit of black paper with a needle. On the other hand, it is stated that pin-hole snapshots are not so fast as those taken with a lens. What a pity. It is stated that the most rapid exposure that can be made through a hole is one of eight seconds, but that a snapshot exposure may be made of six seconds. Hence, we see that the pin-hole has another advantage over the lens, inasmuch as a focal plane shutter is not required for "snapshots."

* * *

The article contains the usual instructions as to how to make a hole with a needle through a thin sheet of copper and how to remove the burr. It also says that the edges of the tiny hole must be blacked without filling up the aperture, but it does not explain how to do it, or whether tar is the right stuff to use.

* * *

I must say I prefer my own method of making one of these holes. There is no doubt about the needle having gone completely through the sheet of copper, even if the sheet is on the thick side. You spread a sheet of copper out on a smooth polished mahogany table, and test its universal horizontality with a spirit level. This is not necessary, but it adds dignity and impressiveness to the proceedings. You then take any old needle, a friend, and a sledge hammer. The second holds the first truly vertical (use a plumb line) on the sheet of copper, and you smite it with the third with all your might and main well and truly on the top. The needle goes through the copper all right. The friend should hold the needle with his left hand, as his right is probably more useful to him, and his left will not count as a hand in future. If the hole is not satisfactory, another one can be made. Another needle and friend will be necessary, but the same hammer will do again.

THE WALRUS.

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Portraiture on Winter Evenings.

Have some magnesium ready for Christmas : nothing extra is needed in the way of apparatus : portraits can be made with ribbon as well as with flash powders.

FLASH lamps and flash powder constantly figure amongst the goods advertised for amateur photographers, yet a great many —a majority, in fact—of those who have cameras do not think of using them for portraiture at night. Within a few days the one great occasion of the year when friends meet and families reassemble will be here, and it is in the hope that we may be able to induce some of our readers to try night portrait work who have not hitherto done so that we have selected it as the subject of our leading article this week.

Such work may be divided into two distinct classes—one that in which just a good ordinary illumination is attempted, so that the print shall have nothing in it to suggest that it was done by artificial and not by daylight, the other in which the source of light itself plays a part in the picture. As portraits pure and simple, the results by the first method are usually to be preferred, but for pictorial work the second plan is decidedly advantageous, and it is one which gives much greater scope both for interesting variations and for the ingenuity and originality of the photographer.

No Special Apparatus Needed.

Although a rapid lens is an advantage for the work in question, it is by no means a necessity. The difference between f/6 and f/8 can easily be counterbalanced by doubling the quantity of magnesium used, so that need not worry the possessor of an R.R. or other ordinary lens.

The work may be done with a hand camera, but for the present purpose it must be on a stand of some sort, and the shutter must be fixed open and some kind of lens cap provided. If nothing else is at hand, the focussing cloth folded up and placed upon the top of the camera so that it hangs down in front and obscures the lens will suffice.

The plates or films to which the amateur is accustomed are those that should be used, as it is much more important that he should be familiar with their development than that they should be particularly fast. It will be seen, then, that beyond the flash powder itself there is nothing whatever that need be purchased beyond what the photographer is likely to have upon his shelves for ordinary work.

It remains, therefore, to consider how it is to be used. There are all sorts of devices for igniting it, but our own practice is to take a piece of newspaper, moisten it with paraffin oil (kerosene), and place it on a tin tray with one edge extending beyond the tray. The flash powder is arranged in a single heap on this, and when the light is wanted a match is put to the paper that overhangs the tray, and the flash follows in a few seconds. This is much better than touch paper, which burns so very slowly that the flash when it does come finds the sitter wearing a painful air of expectancy. Methylated spirit may be used instead of the paraffin, and causes the flash to take place much quicker, but the spirit is apt to dry up before it is lighted, if much time is taken over the final preparations.

A Diffuser Essential.

The commonest fault in flashlight work is harshness of lighting. This is caused sometimes, no doubt, from undue economy with the powder, but more often from the absence of a diffuser. A yard and a half of the cheapest muslin will do all that is required.

MEMORANDA *for the week.*

This space is used only for announcements of free offers by makers or dealers, which we think it would be well for our readers to accept.

It should be tacked on to a couple of blind laths, dipped in water, and hung up about a foot in front of the flash. A reflector (a white sheet thrown over a screen answers excellently) may be put, not too near the sitter, on the side opposite the flash; but with a diffuser and with plenty of flash powder it is not a necessity, and is not always an advantage.

The greatest difficulty in the way of successful flashlight portraiture is that the photographer cannot very well see beforehand the kind of lighting he is going to get. The best one can do is to put a lamp or candle in the place to be occupied by the flash, put out all other lights in the room, and then study the effect from the position occupied by the camera. This must be done direct and not on the focussing screen, as there is not light enough for very much to be seen on the ground-glass.

Where to put the Light.

The best position for the flash must depend upon circumstances, and the photographer will find that there is room for a great deal of skill in selecting the best arrangements of sitter, camera, and light. As a rough guide for preliminary attempts, it is a good plan to put the flash about three feet above the head of the sitter, six or seven feet in front of him, and a couple of feet one side or the other of the line joining camera and sitter. If this brings the flash well in front of the camera some form of screen must be used to prevent it from shining directly into the lens. The nearer the flash is to the sitter the more powerful is the light, but the greater is the tendency to harshness.

When the general arrangements are thus settled a careful examination should be made, with a lamp where the flash is to be, to see if there is any risk of reflection of the flash into the lens. Mirrors, the glasses over pictures, and even bright parts of furniture should be examined, and, if possible, covered up. A reflection from the white enamel paint on a cupboard door has given a lot of trouble on this score before now. Besides reflections ugly shadows should be looked for, particularly any shadow cast by the sitter himself on whatever is used as the background. If any such appear, the background should be removed further away.

Poor Perspective.

One defect often seen in amateur portraiture is due to the camera being too near the sitter. The lens which is fitted on most cameras is of suitable focus for ordinary landscape and general work, but is far too short in focus to give a pleasant effect when used for portraiture, especially when the head and shoulders of the sitter are wanted on a fairly large scale. One must choose between getting violent perspective and getting quite a small picture on the plate.

Portraits with Magnesim Ribbon.

So far we have written of flash powder and flashlight, because this is the form of magnesium lighting which seems to appeal most strongly to the amateur photographer; but it is possible, and indeed easy, to do excellent portrait work with magnesium ribbon. Nothing more is wanted than a little pair of pliers to hold the ribbon and a candle or spirit lamp to ignite it. For ordinary portrait work, such as has just been described, about eighteen inches of ribbon burned behind the diffuser will suffice with a lens working at f/11. The ribbon should be moved about over an area of, say, a couple of square feet. It will be found cheaper than flash powder and, except with a sitter who cannot keep still for the few seconds required for its combustion, quite as efficient.

The exposure in the case of both flash and ribbon is made by uncapping the lens before the magnesium is ignited and capping it afterwards. There should be plenty of artificial light in the room, the lights themselves being kept out of the field of the lens, as if the room is dark the eyes of the sitters look unnatural, and there is a greater chance of movement showing. The action of the ordinary light in the room upon the plate while the lens is left uncapped preparatory to making the flash will be quite unnoticeable.

A Word on Development.

We cannot leave the subject without a few words on the development of these negatives. All attempts to get negatives with plenty of deposit and contrast, such as are usual with landscapes, must be abandoned. They are not at all the sort of thing that will give us the best prints. Over-development must be carefully avoided; the photographer must watch the high lights of his picture, and development should cease, regardless of the shadows, as soon as these are dense enough. Nor should any negative, however much a failure it may appear, be tossed on one side unprinted. Some of the most effective prints are to be got from some of the strangest-looking negatives.

X.

An Important Announcement.

In the first issue of "Photography and Focus" for 1910, published a fortnight to-day, we shall commence a series of articles of a novel character in connection with which there will be a competition with valuable prizes, for which every reader can compete. There will be no entrance fee, nothing being required but a copy of the paper.

Note the date.—The Competition starts January 4th, 1910.

The Spirit of the Times

The Compliments of the Season.

Already many readers who have had occasion to write us have sent us their good wishes for the festive season. We take this opportunity of wishing for them, and for all the other readers of *Photography and Focus* at home or beyond the seas, a right merry Christmas and a happy and prosperous New Year.

'Twas rather late one Christmas Eve, when Jones went
out to dine,
The dark room clock upon his mantelshelf was striking
nine;
When he arrived, they'd evidently done the soup and
fish,
The host was serving ozobromes from out a porcelain
dish;
Jones took his seat and muttered some excuse for being
late,
Then was handed some concoction on a special rapid
plate;
And, when he looked around him, to survey the guests
at leisure,
He noticed each was drinking from a graduated
measure;
Instead of knives and forks, the guests were making
vicious prods
With chop-stick like arrangements, which he found
were stirring rods;
The wine within their measures, he was very much
surprised
To see, was really pyro, which was badly oxidised;
And when he helped himself to salt, it puzzled him to
find,
'Twas acid hypo fixer of an evil-smelling kind;
Then suddenly there entered scores of Brownies with
a rush,
Each brought a mighty crumb tray and a camel dust-
ing brush,
They quickly cleared the table, and then disappeared
again,
While Jones was getting anxious for the safety of his
brain;
He felt a sort of buzzing and a tightness in his head,
Then woke to find that everybody else had gone to
bed;
He'd dined, not wisely, but too well, and so the Christ-
mas fare
Developed weird illusions as he slept within his chair.

Printing in the Dark Days.

While it is possible to make negatives at night, or in the dullest of dull weather, by means of magnesium powder, the amateur whose taste in printing methods leads him to fancy P.O.P. finds himself in difficulty at times. For one thing, it must often happen at this time of year that a print is not finished by the time it gets dark, and one is tempted to leave it in the frame until next day, when there may be light enough to finish it. This is never worth doing, and if nothing else offers it is better to throw it away and make a fresh. More negatives are spoilt by silver stains, through P.O.P. being left in contact with them over night, than in any other way whatever. And silver stains, in spite of infallible cures that have been put forward at one time or another, when at all serious are not removable at all. It is not the prolonged contact, so much as the presence of damp, which causes the stains, and if we could be quite sure that negatives and paper were "bone dry," and remained so, there would be no trouble to be anticipated from this source.

There can be no doubt that the best plan of all, for the amateur photographer who prints on P.O.P. in winter time, is to treat his paper with as much care to shield it from light as if it were gaslight paper, to print it until there is a fairly distinct image upon it, and then, after immersing it in a solution of potassium bromide, to develop it in the way described in the handbooks. There is another method of developing a partially printed picture on P.O.P. without the use of the bromide bath, the developer being an acid solution of metol, or the developer used for phosphate paper or Ensyna; but the other method has always proved itself in our hands to be the more reliable, and has given a cleaner result. Those who have never tried it will be surprised to find how much can be done in this way.

Cheap and Nasty.

We have received lately a number of complaints from readers who have been getting prints or enlargements made at very low prices by some of the firms who advertise these cheap lines in our columns. In one case a reader sent us some of the prints he had received and some of his own prints from the same negatives. The latter showed that he was certainly a very skilful printer; but they did not convince us, as they were intended to do, that he had been "done." We take very great care to exclude from our columns all advertisements that are not genuine, and are always much obliged when readers call our attention to any abuse of our advertising space by dishonest traders. At the same time, we are not prepared to condemn off-hand advertisers whose products are not of the best quality, unless the price at which the goods are supplied is one for which the best might reasonably be expected. There is a market for second quality as well as for first quality; and one is as legitimate trading as the other. We are anxious to protect our readers as far as we can; but they must also protect themselves, by not expecting to get for sixpence things for which the leading firms can get a shilling. Prints and enlargements are the chief basis for what we have written above; but they do not stand alone in this respect; and our observations apply almost as much to apparatus and materials, and particularly to lenses. A lens at two pounds may be excellent value for the money paid for it; but to expect it to be as good as one listed at five or six is only to misunderstand the conditions which govern prices.



Questions and Replies

REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only *one* will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

G. F. EALES (Hull).—The letter has been sent on.

DEANOEL (Brixton Hill).—Letter received and noted.

INCANDESCENT (Norwich).—It is not powerful enough.

STANLEY (Stanley, S.O.).—We are sorry we cannot advise you as to the value of the photogravures. It is not at all in our line.

RETEP (Sheffield).—The Crown Manufactory, Rotherham, makes them and will no doubt be pleased to quote for large or small quantities.

IGNORAMUS (Wood Green).—Alas, it is impossible. If we could do so how nice it would be for all of us. Many thanks for your good wishes.

CERTINAL (Wood Green).—We regret we are unable to give you the composition of the solution. It has not been published by its makers.

T.D.C. (Sutton).—You do not give your name. The method is a very old one, and has often been described in our columns. The other methods are better, as they are not so likely to give spotty results.

NIMROD (Crewkerne).—If you will tell us specifically where your difficulty lies we will try and remove it. You will have to use some form of a vignetter and a diffuser in front of the light to avoid getting a harsh outline.

E.A.L. (Huddersfield).—The trouble is due to the knife not being held vertical while making the cut. It should, if anything, slope the other way so as to undercut the edge of the print slightly, and so prevent any white edge from showing.

KODAKER (Halifax).—The tank may be used for fixing as well as for developing; in fact, we always use it for both. This does not *necessitate* any more thorough washing out of the apparatus; the washing should be thorough, whether the films are fixed in it or not.

WALTER (Hunstanton).—There is nothing better than soap and a nail brush for removing developer stains from the fingers, with a little pumice stone for the worst parts; but if you experience so much trouble it would surely be better to adopt a non-staining developer straight away. The stains are not a necessity.

W.H.O. (Burnley).—The acid is added to liberate the sulphurous acid in the sulphite, this being the active agent in preventing staining. Great care must be used not to add more than the prescribed quantity of acid, or, what comes to the same thing in this respect, less than the quantity of sodium sulphite.

FOTOW (Hampton).—No doubt the deposition of moisture could be avoided by ventilating the camera in some way, or by preventing the warm air from getting access to the back of the lens. Precisely how this is to be carried out could only be settled by looking at the particular apparatus you are using.

REDUCTION (Ferns). — Precisely "why" the phenomenon occurred we cannot say; but it often happens that when changing the composition of a photographic image it is given a higher reflective power, so that when seen at the correct angle it seems lighter than the transparent parts; and as soon as that occurs, of course, it looks a positive.

ETHELRED THE UNREADY (Emsworth).—If the last bath is one of formalin one part, water nine parts, applied for three minutes, and the prints are then dried, and afterwards rewetted and squeegeed you should have no trouble. We prefer to use a little wax dissolved in benzol, say five grains in two ounces. This is rubbed over the glass and then polished off as far as possible. There is less chance of sticking if ferrotype plates or pulp boards are used; but the glaze is not so good.

X.Y.Z. (Barrow).—You have made a judicious selection.

R. A. SILK (Portsmouth).—Congratulations on your smartness.

J. PENNY (Dundee).—See page 454 of our issue for December 7th.

M.D. (Jhalrapatan City, India).—There is no bath that will do what you want.

LENS (Rotherham).—We cannot place so many in order of merit, but No. 3 is certainly the best, as well as the most costly. Nos. 1, 2, and 4 share the second place.

COUNTRYMAN (Sittinghourne). — It is always risky but probably you would do best with 1 or 3. But you must, in any case, be prepared to take care of yourself.

OPTICIAN (Newcastle).—A letter simply addressed to the Institute, London, would reach them; but South Kensington, London, S.W., would be more explicit.

P. SMITH (Hanley).—"The Human Figure, its Beauties and Defects," is published by Grevel and Co., price 5s. 4d., post free. Our publishers can supply it if required.

F. B. SMITH (Plumstead).—The type is almost unknown to-day. The Newman and Guardia "Universal" camera is the only one we know which will comply with your requirements.

CLUBBITE (Ealing).—The honorary secretary *pro tem.* is Mr. Reginald W. Craigie, 32, Winsor Court, Bayswater, London, W., who will no doubt be glad to give you full information.

YELLOW (Sheerness East).—There is little doubt that the discolouration is due in some way to the water. Probably if it were well boiled and then allowed to go cold it would become softer and more suitable. We presume the same sample of hypo is being used all through.

W. SMITH (Dewsbury).—The price seems to be a reasonable one; but it would be well to have the apparatus on approval, making use of our deposit system. There is nothing against the outfit if it is in good order; in fact, in new condition, it is a very good one in every respect.

M.D. (Jhalrapatan City, India). — We do not understand why the hydrokinone has turned black if it is dry. If it is in solution it is due to insufficient preservative (metabisulphite or whatever it is you use). A formula which is of all-round use in the way you suggest is rodinal 1 dram, water 4 ounces.

E.P.L.P. (Wellington College).—Photopake is the most convenient substance we know for the purpose; but if you wish for something you can mix up for yourself a formula which has been recommended consists of shreds of rubber 15 grains, asphaltum 1 ounce, benzol 5 ounces. When dissolved vegetable black is added to make it as opaque as may be required.

L. C. ANDREWS (Willesden Green).—The bath is not one to be recommended, either for plates or papers, as it must have a strong tendency to sulphurise. If you want an acid fixing bath suitable for both, dissolve six ounces of hypo to the pint of water and add a quarter of an ounce of potassium metabisulphite. For use for papers take equal parts of this and of water; for plates it may be used a little stronger.

R.D.N. (Exmouth) asks if bromide prints artistically finished in monochrome will bear reproduction by the ozobrome process. *A.*—None of the hand work will reproduce, and it is possible it might interfere with the working of the ozobrome process itself. This would depend on what had been done to the print. It is possible to work up a print with metallic silver in such a way that the ozobrome process will reproduce both photograph and hand work, but we are not aware that it is done, except by a few amateurs.

ANASTIGMAT (Halc).—We should put No. 3 first and No. 5 second.

REX (Clerkenwell).—The aperture is f/14 and the speed, approximately, a thirtieth.

F. W. HARRISON (Newcastle-on-Tyne).—There is only one satisfactory way—get a meter.

POSTOARN (Starcross).—We are unable to give you the name of the makers, as they are unknown to us.

C.J. (Brecon).—We never heard of the company. We have made enquiries, but can learn nothing of it.

C.H. (South Lambeth).—Your best plan will be to have the camera fitted with the best Aldis lens you can afford.

BELTEN WILL (Carlisle).—Any fine sheeting that can be got in the requisite width will be found to answer.

W. SHAW (Bacup).—The case is so exceptional that there seems nothing to gain by the publication of the correspondence.

FACTOR (Woodbridge).—You will be well within the mark if you take it at 12 modifying it subsequently if you find that you are over or under-developing.

D. (Brook Green).—The camera is a very old pattern, in fact, it was one of the first hand cameras to be put upon the market. We are afraid you will get nothing for it, even as a "curio."

C.W.H. (Tonbridge).—The makers are not represented in this country; and you would be well advised to select something which does not labour under this disadvantage. There are quite a lot amongst which you can choose, and all comply with your requirements.

SULPHIRE (Exmouth).—Your formula could not be improved. The trouble is in your case that the stain was evidently of the same composition as the image. Stains are of various kinds, and a method that will answer with one may be quite unsuitable for another.

W. SHORT (Todmorden).—Nothing is to be gained by chopping and changing developers, as you have been doing. The best advice we can give you is to use the formula given by the maker of the plates, the pyro soda one is very suitable, and master it. If you do not get good negatives with it, you may be sure that there is something wrong with your manipulation, not with the developer.

F.V.Y. (Droitwich).—The reason is that the general definition is usually better when the convex side of the lens is turned towards the plate. It is not an invariable rule to do so and if the extra extension gained by using the front half instead of the back, or by putting the front half in the place of the back, is of any service, there is no reason why it should not be done.

W.R.W. (Wingate).—The exposure has been on the full side—in fact, we think half a second would have been nearer correct; and the plate needed more development. If you reduce the exposure and still find that you get a sort of fog all over the picture, as in this case, it would be well to look to the lens that it is not dusty, and to make sure that the bellows are well blacked. We are very glad to hear we have been of service.

G. (Leeds).—Certainly you can. We found the Paget Phosphate paper to be very satisfactory in every way. Did you not see our review of it? Nothing is reviewed in *Photography and Focus* unless we have had an opportunity of examining and testing it. We do not claim that everything that is not reviewed is bad; it may not have been submitted; but you can take it from us as a rule to which we admit of no exceptions whatever, that if it has been favourably reviewed, the sample submitted to us was carefully tested and found satisfactory.



TO SECRETARIES & RECORDERS.

We are at all times glad to receive reports of Society Meetings, of a practical, useful character; but cannot give space to matters of strictly local interest, or to abstracts of lectures. A pithy remark or some hint or suggestion in sufficient detail to be of service to other photographers will be welcome. Unsuitability is the only ground for exclusion, and those who have been kind enough to send us reports which have not appeared are asked to note this for their guidance in the future.

THE HAMPSTEAD Photographic Society has just held its annual exhibition. The first prize was taken by R. Jacob and the second by E. Musmann.

THE KRISTAL LANTERN Slide Competition for the best slides on the Kristal plates, we are asked to remind our readers, will close on Dec. 31st.

THE PHOTOGRAPHIC SECTION of the Balham Constitutional Club has just held its annual exhibition of members' work. The prize winners were F. G. Seares, W. S. Ifould, and W. W. Aldridge.

SECOND-HAND APPARATUS. Mr. Arthur Spencer, of 41, Harrow Road, London, W., has just issued a fresh catalogue of the second-hand apparatus he has for disposal. The list contains a great number of bargains, and is one which any of our readers who are thinking of buying would do well to get. The list is particularly rich in high-class lenses at greatly reduced prices.

A BOOKLET entitled "The Cooke Lenses for Portraiture" has just been issued by Messrs. Taylor, Taylor and Hobson, of Stoughton Street Works, Leicester, and will be sent free to any reader of *Photography and Focus* who sends a postcard to them for it. It deals particularly with the use of Cooke lenses for portraiture, and is illustrated by some excellent examples taken with them.

X-RAYS AND THE CUSTOMS. Dr. Norman E. Aldridge at the Southampton Camera Club said that the X-rays were used by the Customs authorities for examining small packages of imported goods. He showed how effectively they could be employed by packing various articles of jewellery in a small bag, and then exhibiting the contents of the bag as shown by the shadows cast by the jewellery on a fluorescent screen, when the bag was interposed in the path of the rays.

THE SERVICE CO.'S annual report shows a gross profit of £7,234, the net amount available for dividend being £1,731.

A HUGE FORTUNE, says the "Westminster Gazette," awaits the man who can invent a paper that will print out by gaslight.

"THE ROCHDALE TIMES" is one of the provincial papers which has a well written column every week dealing with photography.

WARRINGTON PHOTOGRAPHIC SOCIETY Mr. A. C. Smithson having resigned the honorary secretaryship, Mr. Harry Holloway, 51, Bewsey Street, Warrington, has been elected in his place.

THE RAJAR CAMERA, for the best print on Rajar papers or cards, has been awarded to W. J. Ware, the Avenue, Truro. The paper was purchased from W. T. Hall, chemist, Truro.

BROMOIL. At the Catford and Forest Hill Photographic Society, Mr. A. H. Garner demonstrated a new bleaching salt for bromoil which he proposed to put on the market shortly under the name of "Silvax." It is a powder, which only requires to be dissolved in water to be ready for use. The bleaching bath is used at a temperature of about 80° Fahr.

THE CAMERA CLUB for London. At the adjourned meeting at the Gaiety Restaurant on the 7th inst. it was reported that the amount promised to start the club had reached £1,039, and that about a hundred promises of membership had been received. Mr. R. W. Craigie, who is acting as secretary, stated that it had been decided to open the club in March next.

MAKING LANTERN SLIDES. Mr. Godfrey Bingley, lecturing on this subject to the Leeds Photographic Society, said that the developer he preferred was one of eikonogen and hydrokinone. For slides by reduction, daylight was better than artificial light, and over-development followed by reduction with ferricyanide and hypo, was better than under-development and intensification. He thought the best plan, when using daylight, was to make one or two trial exposures, and then, having in this way ascertained what the correct exposure should be, to proceed to expose a number of plates and then to develop them together.

LANCASHIRE AND CHESHIRE Photographic Union. The annual meeting was held at Southport on the 4th inst. The secretary reported that the societies federated numbered fifty, two more joining at the new year. The following officers were elected: President, T. Lee Syms; vice-presidents, W. Brunt, T. Burton, J. Hawkins, J. Renshaw, and E. Till; the honorary secretary and the two section secretaries, W. Tansley, J. Frankland, and T. Hudson, were re-elected. The auditors are John Smith and Isaac Pearson. The invitation of the Chester Society to hold the Union excursion in June next in that historical city was accepted. The retiring president, Dr. John Barr, was elected a life member of the council.

PHOTOGRAPHERS AND THE WATER SUPPLY. The Edinburgh and District Water Trust has under consideration a case in which its surveyor has made an extra charge for a tap in a certain house, which, he claimed, was used for photographic purposes. "Unless the Trust is wishful to have a thorny question on its hands," says the "Edinburgh Evening Despatch," it will be well advised to commend the surveyor for his officious zeal in the interests of the revenue, and resolve, for the present at least, to let the matter rest.

AT THE WELLCOME PHOTOGRAPHIC CLUB'S exhibition in Class A, H. W. Lane took the first award, G. T. Gale the second, while E. G. Price, W. H. Fowkes (2), F. H. Carr, F. S. Clarke, and F. C. Starnes received honourable mention. In Class B, R. G. R. Swainston was first, F. H. Carr second, and H. C. Sayer (2), C. I. Pearsall (2), R. E. Jackson, and F. H. Carr received honourable mention. In the technical section the award was taken by H. C. Sayer, G. G. Watt receiving honourable mention.

Correspondence.

The Editor is not responsible for the opinions of his Correspondents.

OZOBROME.

Sir,—In your issue of 14th December, on page 489, it is stated that the diluted sensitising solution rapidly deteriorates. In our experience such is certainly not the case. We are making ozobromes all day long and never think of changing the pigmenting bath except once a week, and then only as a precaution against dirt.

The pigmenting solution as sold by us will keep almost indefinitely either in concentrated or diluted form, provided the acid bath is used after the immersion of the plaster in the pigmenting bath as recommended. Of course, the used bath should be filtered occasionally.

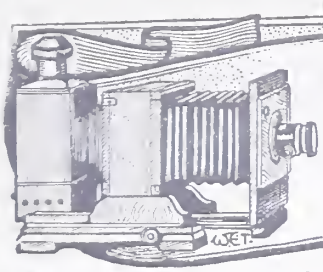
Yours, etc.,
OZOBROME, LTD.

Sir,—In a recent issue of your paper you say that the use of distilled water in the developer is quite unnecessary, and that ordinary tap water is pure enough for all practical purposes.

I have no doubt that you are right in ninety-nine cases out of a hundred, but my experience shows that in the hundredth case the water may be to blame for failure. I have been much troubled by getting very poor negatives. I have blamed plates and films, chemicals, shutters, all sorts of things. At last I tried boiling the water, and all my troubles disappeared. My water is extraordinarily hard. I am always having to clear out my pitchers and boiler, and in my case this has been the undoubted cause of failure.

I think it possible you may think it worth while to insert this letter, which may be useful to one or two of your readers who have been unable to run the cause of failure to ground.

Yours, etc.,
R. C. MACLEOD.



A Home-made Paper for Enlargements.

BY A. J. JARMAN.

THE process which is described below is one which is put forward by Mr. A. J. Jarman in the current issue of "American Photography" as one which will allow of enlargements being made upon a home-sensitised paper, two alternative methods of development being given, allowing the user of the paper a choice of the final colour that is to be obtained.

A wide variety of paper can be used with success; many of the drawing papers, ordinary postcards, Whatman, etc., will all give excellent results, and it will be found that enlargements made in this way will be very suitable for painting on or working up in sepia or black and white.

The first process is the salting of the paper. Any number of sheets of paper can be salted, and after drying kept in a dry place under pressure, as, for instance, in an ordinary printing frame, until required for use. The salting solution can be made up and used in daylight, when, if any air bubbles are found on the paper, they should be dispersed by dipping a quill camel-hair brush into the salting liquid and lightly rubbing over the spot where the bubble has formed. The salting solution consists of six ounces of serum (made from milk), one dram of potassium iodide, and thirty grains of potassium bromide. The serum is readily prepared from milk by allowing about a quart of milk to stand until the cream has become well separated, then adding one ounce by measure of acetic acid to the remaining skimmed milk, stirring the acid well into the milk, and allowing it to stand for twenty-four hours. The curd will separate from the serum, which is the clear liquid that remains. This must be filtered so as to eliminate any trace of fat produced by the cream. A piece of rennet can also be used in place of the acetic acid; the serum in either case will answer the purpose.



MISTLETOE. By J. A. LOVEGROVE.

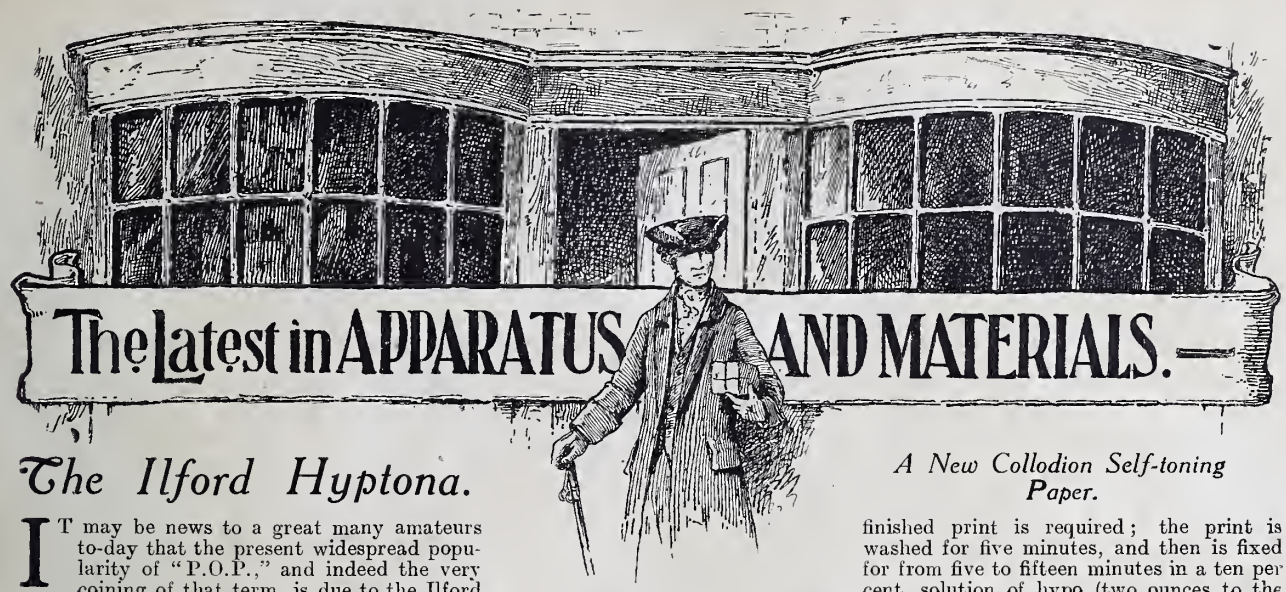
Awarded the Bronze Plaque in the Special Subject Competition just closed.

The iodide and bromide are best dissolved by grinding them in the serum in a small mortar, or crushed in an eight-ounce glass measure with a glass rod (neither wood nor metal of any kind should be used for this operation).

When the salts are dissolved they are mixed with the rest of the serum, and filtered through a tuft of absorbent cotton pressed lightly into the neck of a glass funnel after it has been wetted with water and wrung nearly dry. This will prevent clogging during filtration. The pieces of paper may be salted either by floating them upon the liquid for three minutes, and then suspending them to dry, or they may be brushed over the middle of the paper in a circle or square and dried, always placing a lead pencil mark upon the back, so as to know, when the time arrives to make the picture, which is the side to be sensitised.

The sensitising solution is made by dissolving three hundred grains of silver nitrate in ten ounces of water to which half an ounce of glacial acetic acid has been added. The piece of salted paper is floated upon the sensitiser in a clean glass or porcelain tray for three minutes, or is carefully brushed over with some of the silver solution with a small tuft of absorbent cotton. The latter method is the better for paper that has been salted in the centre only. The paper is allowed to become only slightly dry, so that there is no liquid to run off the surface, and then, having the enlarging apparatus ready, the sensitive sheet of paper is put up for exposure.

After making the exposure, which may require from a few seconds to a minute or more, the paper is developed with a solution of twenty grains of citric acid and twelve grains of pyro in six ounces of water. The picture will develop in a very short time, when it must be washed in running water in a dish, then fixed in a solution of two ounces of hypo in ten ounces of water, to which one grain of gold chloride has been added. It is then washed.



The Latest in APPARATUS AND MATERIALS.

The Ilford Hyptona.

A New Collodion Self-toning Paper.

IT may be news to a great many amateurs to-day that the present widespread popularity of "P.O.P.," and indeed the very coining of that term, is due to the Ilford Co., yet such is the fact. For many years what is now known as P.O.P. was on the market, under the name, usually, of "Obernetter paper," from its maker; but photographers went on using albumenised paper just the same. Then the Ilford Co. decided to make it on a large scale, and in a very perfect form; it found it possible to produce it in quantity much more cheaply than albumenised paper could be produced, and as, in addition to this, its greater richness and gloss made it very popular, in a very little while albumen printing became obsolete. All this happened seventeen or eighteen years ago, and so has passed into photographic history.

The P.O.P. then popularised was P.O.P. as we now know it, no important change having been made in it since 1891. Two modifications have been introduced side by side with it, however. One of these is a P.O.P. in which the vehicle of the emulsion is collodion instead of gelatine, a very old idea, but commercially subsequent to gelatine; and the other is the introduction into the emulsion of gold compounds so as to make the paper what is known as "self-toning." That is to say, no separate toning bath containing gold is needed. The Ilford Co. was very early in the field with a self-toning paper, Kalona, on which very fine results could be obtained. This was a gelatine paper, and although no gold was added to the toning bath it required a separate toning solution containing ammonium sulphocyanide and alum.

The latest introduction of the Ilford firm, Hyptona, is a collodion P.O.P., which requires no separate toning bath whatever. The manipulation is of the simplest possible character. The printing is carried a little deeper than the finished print is required; the print is washed for five minutes, and then is fixed for from five to fifteen minutes in a ten per cent. solution of hypo (two ounces to the pint). A washing of half an hour's duration then completes the proceedings. Being a collodion paper, the prints may be blotted off and dried by heat if they are wanted in a hurry; while, if a high gloss is required, they may be squeegeed to glass or ferrotype in the usual way.

Our own trials of Hyptona, which we have been using during the last few days, were sufficient to show that as a photographic product of the highest quality it well deserves to occupy a place beside the other staple manufactures of Ilford, Ltd.

It seemed to be in all ways quite faultless, printing readily, toning quickly to one of a range of fine and effective colours, and yielding finished pictures which in tone, gradation, and charm of surface left nothing to be desired. Perhaps what will be its greatest attraction to a large number of our readers has still to be mentioned, and that is its simplicity. A single solution of the very simplest possible character is all that is needed; and there seems to be no stage of the proceedings at which there is room for error. Whether prints on any self-toning paper are entitled to be called absolutely permanent, time alone can show; but, at least, this much may be said, that in the inertness of collodion, and in the thorough washing, before putting the prints in the hypo, which the instructions prescribe for Hyptona, we have two conditions which are most favourable to permanence.

Hyptona is made in glossy mauve, matt white, cream, and "postcard" cards, and in glossy mauve, matt white, cream smooth, and cream rough paper, and is supplied in sheets and in packets of cut sizes. It is a paper which we can most unreservedly commend.

The Barnet Cold Tone Lantern Plate.

THE slide maker who uses commercial lantern plates, and to-day very few, indeed, use anything else, finds that there are mainly two distinct kinds between which he can make his choice—those which are fairly rapid and only yield black tones, and those which are considerably slower, and allow a very wide range of colours to be obtained by development only, merely by varying the exposure and development. The enthusiastic slide maker will employ both kinds, as although fine black tones, just as well as warm colours, can be got on the slower plates, where black tones only are required the faster kind is to be preferred as a rule.

Messrs. Elliott and Sons, Ltd., of Barnet, have just issued a new Barnet lantern plate, which is of the more rapid kind, and is made for cold tones. The makers state that with a negative of average density an exposure of from five to ten seconds at two feet from an ordinary gas burner will prove to be correct, and this statement we are able to confirm from our own trials. The plate is very suitable for slide making in the camera by reduction, and reducing from whole-plate to lantern size, working with a (nominal) aperture of f/16, the illumination being a white card on which fell the light from an incandescent gas burner about a foot away, an exposure of twenty minutes proved to be ample. The slides obtained were very fine in grain, perfectly clear and transparent in the high lights, and of a fine black colour.

Some of our trial plates were developed with the hydrokinone and caustic soda formula given on the plate box by Messrs. Elliott, and proved perfectly satisfactory. We also used a pyro-soda developer with some further exposures, and found that a good warm black colour could be obtained with that also, without any staining or fog. We mention this because we have heard it stated that pyro-soda is unsuitable for slide making; whereas, if there is sufficient sulphite present to prevent stain, it gives slides of a very agreeable colour.

The new plates are well up to the "Barnet" standard—we need not say more—and we have no doubt will find many satisfied users this winter season.

Christmas Dinner under the Microscope.

By Cuthbert Andrews, F.R.C.S. Special to "Photography & Focus."

For illustrations see the opposite page.

MY brother-in-law that is to be was sneering at my photography, that I never choose for my subjects things that interested *him*. "Well, look here," I told him in desperation, "I'll bet you half a crown that by Christmas morning I'll bring you a dozen photographs all directly connected with the Christmas dinner. I know *that* interests you."

He took the bet, and I went ahead at once.

Coal to cook the meal with was an easy start. I had a slide of a thin slip of coal, and here is its micro-photograph. You can see in it the roots and stems of the plants which rotted away thousands of years ago, and which sank into the earth to be gradually turned into coal.

Well, after that I took a little piece of meat, and laid out a very thin bit on a slip of glass. Then I hitched my camera on to the microscope, put the fragment of meat in position, and in a few minutes I had my second picture.

Having provided for the joint and its cooking, I turned my attention to the vegetables. I took a potato—raw, of course—and slithered a bit off, which I put on to a slide, as before. You can easily see the starch grains—potato is nearly all starch, you know. I next chose another of my uncle's slides—a piece of the stem of the pepper plant. Of course, I knew that the actual pepper itself would have been more appropriate, but there's nothing very attractive about pepper corns, whereas the stem is really pretty, and one must sacrifice something to art nowadays, anyway.

Well now, sugar's a pretty useful thing at Christmas, as everyone knows, so after the pepper I took a lump and pounded it up in water, spread a little on a glass, and then dried it until it formed into crystals. Then I rigged up a thing called a polariscope. It's rather a fag to explain it, but anyway, you pass the light through prisms, and everything comes out coloured like a rainbow.

I don't mind telling you that I was a bit stumped over the Christmas pudding until I remembered the little prickly bit of holly which is always stuck in the top. I put just one of the spikes of a leaf under the lens, and—well, to look at it you wouldn't imagine it could prick in a hundred years, would you? And yet the point is as fine as any needle I ever saw.

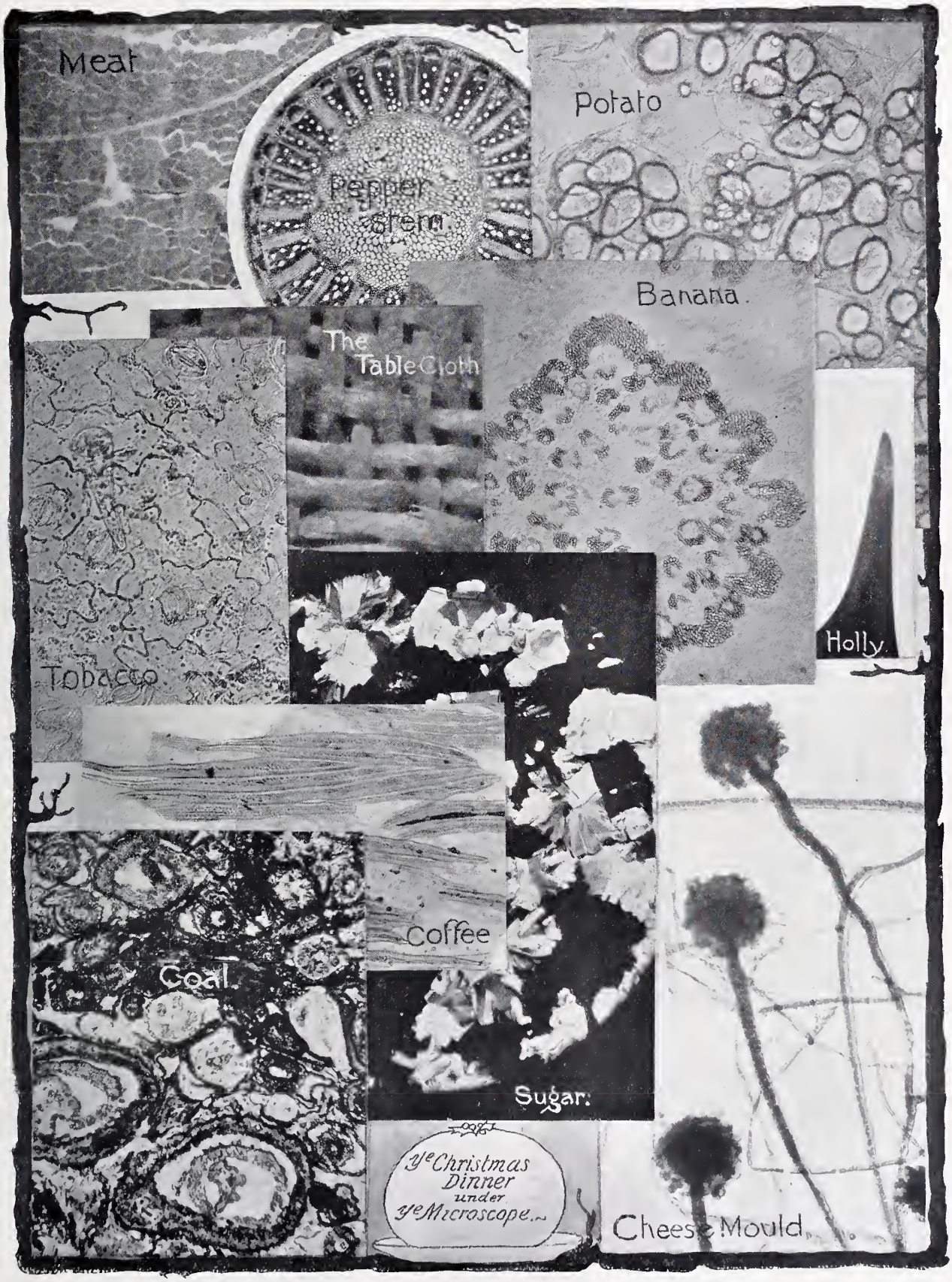
I removed all traces of the sweets, and next came the cheese. And at our place it *is* cheese, mind you. My governor likes it what he calls "ripe," and what I call "rotten." If you will believe me, when I scraped off a tiny bit of the green mould and put it under my microscope this is how it looked—a regular flower garden, I give you my word.

I was by now feeling almost as though I had had my Christmas dinner, so thought I'd pass on to something less filling, so I tackled the dessert. You know when you break a banana from the stalk the little hard end that comes off with the fruit? Well, my next photograph is a picture of a slice through that hard end, and if you look you can see how well it shows the little vessels and fibres—all the works, so to speak.

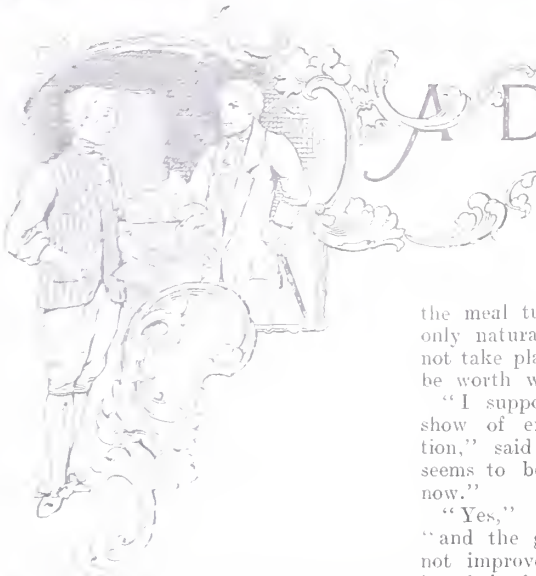
After the dessert, coffee and cigars brought the total up to ten, as you will see if you have kept count. I had nearly forgotten one important thing. All these courses we have sat through have been placed one by one on the table, and I have only just given a thought to the cloth, which was laid from the start. However, here it is—or a tiny piece of it. Doesn't it look as though it were made out of old bits of rope? And all those various twists in each thread are what make that shiny sort of pattern.

"That's only eleven," and I cast about for the twelfth. What comes after joint and vegetables, sweets, cheese, dessert, coffee and cigars. I have it. And here is the finish of the dozen.





See the opposite page.



A Darkroom Dialogue

THE enlarger worked very well after it had been fitted with the ground glass as described in the last "Dark Room Dialogue," and an enlargement was made and was left to wash while the three friends went down to supper. Conversation during the meal turned on enlarging, as was only natural, and so, although it did not take place in the darkroom it may be worth while reporting here.

"I suppose we shall have a great show of enlargements at the exhibition," said Oliver, "almost everyone seems to be going in for that work now."

"Yes," said the sunburnt man, "and the general average of work is not improved by it, either. Quite a lot of the fellows seem to be prouder of wretched, coarse twelve tens than of good contact prints. Mere size seems to weigh with them more than anything else."

"Still, what are you to do with a quarter-plate hand camera?" put in Lawson. "If you want to show at an exhibition at all, you simply *must* make enlargements."

"It is not so much the fact that they are enlargements that I object to," replied the sunburnt man, "but that they are bad enlargements."

"I think that will right itself in time," said Oliver. "At present, while most amateurs are making enlargements, they are doing so from negatives which have been made, in the first instance, for contact printing. And a negative that will give a good contact print is one that it is very difficult to enlarge successfully."

"Why! I should have thought that the negative that would give a good contact print would have been just the



A Portrait. *By Allen E. Neild.*

From the Advanced Workers' Competition just closed.

thing for enlarging," said Lawson. "That enlargement we have just made is all right, isn't it? And that negative gives a good print by contact, as you know."

"So it does," said Oliver, "but only by one process—gaslight. It is much too thin to print well on, say, self-toning P.O.P. I ought to have said that gaslight printing is the exception, and that a negative which will give a good gaslight print is exactly the negative to give a good enlargement. But very few photographers aim at a negative of that sort, when they are developing. They all seem to be tempted to get plenty of density, and the almost invariable under-exposure of hand camera negatives by keeping the shadows blank helps to give unsatisfactory enlargements."

"Then do you mean to suggest that if I think of making enlargements I ought to develop my negatives accordingly?" said Lawson, who appeared to see in the suggestion more complications for his future work.

"Undoubtedly I do," said Oliver.

"More than that," added the sun burnt man. "You must not only bear it in mind when you are developing, but when you are selecting the subject, and when you are exposing. A little blank part, which does no harm in a quarter-plate print, may seem to be a big bare spot when an enlargement has been made, and the slightest suspicion of under-exposure will give you empty black shadows in the enlargement, which will quite spoil it. The poor enlargements we see about are due more to the use of unsuitable negatives than to anything else at all."

"Then if I am to make my negatives for enlarging, I shall not be able to use them for contact printing at all, except on gaslight paper?"

"No. I don't mean to go as far as all that; but I do mean to say that if they are made so as to give the best enlargements, they will be such as to give decidedly soft prints by contact on P.O.P. or anything of that kind. They will look very well, but they won't be brilliant or sparkling."

"What I meant when I said things would right themselves in time," said Oliver, "was that I believe that with enlarging as popular as it now is, amateurs will begin deliberately to make their negatives thin and generally suitable for enlargement, and that contact printing will come to be regarded as a sort of side show, and that then enlargements will improve."

"I shouldn't be surprised to find that that is so." said the sunburnt man. "Already there are a good many who seem to regard enlarging as everything, and the number must increase. Besides, enlarging is so simple. It is quite as easy as contact printing, and the one great thing is to get suitable negatives."

"But most of us have got a lot of these bright negatives, which you say are too strong to make good enlargements. What are we to do with them?" enquired Lawson "What is the best way to make enlargements from them that won't have this harshness and coarseness you talk about?"

"Well, the best way of all," said the sunburnt man, "is to make carbon transparencies from them by contact, and enlarged negatives from those. Then you can get your big prints just as soft as you like."

"But that is too complicated for me."

"Well, then," suggested Oliver, "you must be satisfied with what degree of softness you can get, by giving the enlargement a full exposure and developing it with a very dilute developer. That tends to reduce contrasts."

"Or you can adopt what is called Sterry's process," said the sunburnt man, "and expose for the densest parts of the negative; and then, before developing, allow the bromide paper to soak for half a minute or so in a very dilute solution of chromic acid. That reduces the contrasts."

"But there is one thing I don't like about either of those methods," said Oliver, "and that is that, as you know, I am fond of sulphide toning; and if there is one thing more certain than another it is that bromide prints or enlargements which have been treated this way in order to secure a soft result give most beastly colours when sulphide toned."

"I'm glad to know that," said Lawson, "as I had thought of toning some of my enlargements for the show, and they will have to be made from fairly strong negatives, so I suppose I must abandon the idea."

"There is one way by which you can get over the trouble," said the sunburnt man; "and if you fellows like to look in at my place on Monday night I will demonstrate it. I have got to make a bromide enlargement from a negative which is very good in other respects, but has been developed far too much. I have got a dodge for dealing with it, though; and if you come in I will show it you."



"WITH BEST CHRISTMAS WISHES." BY ARTHUR TURNER.

Awarded a Certificate in the Special Subject Competition just closed.



A HINT TO THE WISE IS SUFFICIENT. BY CHARLES S. COOMBES, B.Sc.

Awarded the Silver Plaque in the Special Subject Competition just closed.

Long Names for Simple Things.

THE amateur who is not conversant with the rudiments of chemistry may often spend a few pence unnecessarily upon chemicals which he might have found in plenty at home, or which he has already bought under different names.

For instance, he may be following a formula which mentions sodium chloride as an ingredient. The local chemist would doubtless smilingly supply this substance at the rate of twopence an ounce, while his neighbour the grocer would give a couple of pounds for the same money, only he would call it salt. Sodium chloride is merely another name for common table salt.

Similarly, sodium biborate is the homely borax, used for softening water and for other household purposes, and an ingredient of several toning baths.

The chemical name for washing soda is sodium carbonate. In this case it is advisable to purchase the re-crystallised salt from a chemist who deals in photographic sundries, as the crude substance, while useful enough in the wash-tub, contains impurities which would be inconvenient if introduced into a developing bath.

A mixture of calcium hypochlorite and calcium chloride forms the familiar bleaching powder, otherwise known as "chloride of lime," or, as pronounced by a little girl who was sent for a pennyworth by her mother, "Glory divine."

Again, the cook will be able to provide sodium acid carbonate and potassium hydric tartrate, though she might not know it. The former is bicarbonate of soda, an ingredient in most acrated waters, and the latter is cream of tartar, used, among other things, for making cooling summer drinks. In fact, the kitchen is a gold mine to the amateur dabbler in chemistry or photography, both for chemicals and domestic utensils that can be used as extemporised apparatus.

Aluminium sodium sulphate looks rather important, on paper, but it is nothing more formidable than ordinary alum, which sometimes figures in a dark and mysterious manner in bread and cake.

The following commonly occurring chemical names and their popular equivalents may be of interest: Potassium sodium tartrate=Rochelle salt; lead acetate=sugar of lead; ferrous sulphate=green vitriol green copperas, or su'phate of iron; hydrochloric acid=spirits of salts, a rather purer form being called muriatic acid; sulphuric acid=oil of vitriol; nitric acid=aqua fortis; ammonium chloride=sal ammoniac; mercury bichloride or mercuric chloride=corrosive sublimate; potassium nitrate=saltpetre; potassium ferrocyanide=yellow prussiate of potash; potassium ferricyanide=red prussiate of potash; magnesium sulphate=Epsom salts; and sodium sulphate=Glauber's salt.



"The New Socks" H. F. Galloway.

Awarded a Bronze Plaque in the Advanced Workers' Competition just closed.



THE WHITE MIRROR.

BY WILLIAM A. STEWART.

No. 79 at the Exhibition of the Royal Photographic Society



World-wide Renown for Quality.

Reliable under all conditions.

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WHITE, MAUVE & DEEP MAUVE. GLOSSY SURFACE.
Quickly Printed. Easily Toned.

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PLATINO-MATT SURFACE. ROUGH & SMOOTH.
Superb Quality.
For Contact Printing or Enlargements.

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PLATINO-MATT SURFACE. ROUGH & SMOOTH.
The Perfection of Gaslight Papers.

Imperial ULTRA-RAPID PLATES FOR DULL WEATHER EXPOSURES.

"Imperial FLASHLIGHT" 350 H.&D.

NOTHING FASTER MADE.

"Imperial SPECIAL SENSITIVE" 275 H.&D.

PRESS PLATE AT POPULAR PRICES.

"Imperial SPECIAL SENSITIVE ORTHO" (S.S.O.) 275 H.&D.

THE FASTEST ORTHO PLATE IN THE WORLD.

The IMPERIAL DRY PLATE Co. LIMITED.
CRICKLEWOOD, LONDON, N.W.

Our Competitions. Awards for the Month.

The Beginners' Competition.

THE entries for the Beginners' Competition never fall off in point of numbers; and each month brings us an immense budget of photographs, good, bad, and indifferent. Nothing is more curious than the way in which prints often of excellent technique are allowed to be spoiled by inattention to details. Probably 50% of the entries are absolutely untrimmed. We do not mean by this that the competitors have not cut the prints down to suit the subjects, but that they have not even been at the trouble to cut off the defective edges. As we have pointed out before, a great many of our competitors would be helped by careful study of our "Critical Causerie," which is intended to assist those who are weak on the pictorial side of their work.

AWARDS.

FIRST PRIZE.—A signed copy of "The Complete Photographer." "Winter Work," by H. Bonner, 2, Sullivan Street, Longsight, Manchester.

SECOND PRIZE.—A free subscription to *Photography and Focus* for twelve months. "The Leisure Hour," by G. Brookfield, Clumber, Worksop.

CERTIFICATES.—"Sunlight and Shadow," by H. F. Ivatt, Prospect Villa, The Uplands, Stroud, Glos., and "Homeward through the Snows," by N. E. Toke, Penfillan House, Folkestone.

Special Subject Competition.

THE entries for this competition this month are not so numerous as usual, though the average quality is certainly better than it has been for the last two or three months at any rate. A great many of the competitors failed to grasp the meaning of the subject, and sent in prints from their best negatives, regardless whether these were or were not suitable for Christmas or New Year cards. As usual, also, there are quite a number of competitors who in sending in ignore the rules of the competition.

AWARDS.

SILVER PLAQUE.—"A hint to the wise is sufficient," by Charles S. Coombes, B.Sc., 246, Birkbeck Bank Chambers, Holborn, E.C.

BRONZE PLAQUE.—"Mistletoe," by J. A. Lovegrove, 33, Westbury Road, New Southgate, London, N.

BRONZE MEDAL.—"The Waits," by W. Francis Brooks, Mon Abri, Clarendon Grove, Mitcham, Surrey.

CERTIFICATES.—"With best Christmas Wishes," by Arthur Turner, 99, Carr Road, Sheffield. "With Eye Upraised," by Frank Smith, 52, Rue Lebeau, Brussels.

The Advanced Workers' Competition.

THE entries this month both in quality and quantity show a marked advance. We are also glad to note that, while the total number of pictures had increased, the total number of competitors has increased considerably also, comparatively few workers sending in several pictures apiece. The criticism is well in hand, and all those prints which were sent accompanied by stamped wrappers or labels for return will, we hope, be sent off by the beginning of the New Year.

AWARDS.

SILVER PLAQUE.—"The Shepherd," by Grafton Goatley, 37, Lavenham Road, Southfields, S.W.

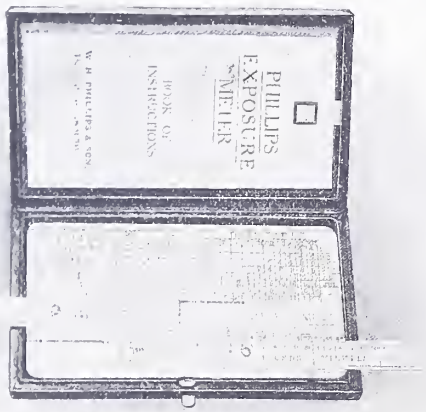
BRONZE PLAQUE.—"Wind and Rain, October," by Octavius C. Wilmot, 1, Forfar Street, Sunderland.

BRONZE MEDAL.—"A Summer Morn," by H. Marle, Stapleton, Bristol.

CERTIFICATES.—"Durham," by Arthur Mann, 19, Lonsdale Road, Roker, Sunderland; and "A Wayside Inn," by A. E. Fairants, 50, St. Margaret's Road, Manor Park, E.

The Phillips Photographic Meter.

THE utility of an exposure meter is a subject which has often had attention in *Photography and Focus*, and we imagine that at this late day there must be very few of our readers who are in ignorance of our views upon that topic. There is no other method, so



far as we are aware, by which with a very little practice, the amateur photographer may make sure that in the great majority of cases his exposures are perfectly correct, and that even when he takes up a class of work with which he is quite unfamiliar, he will be able at the very first attempt to get within a reasonable distance of accuracy.

The latest of these devices to be put upon the market is the Phillips meter, made by Messrs. W. H. Phillips and Son, of 98, Truro Road, Wood Green, London, N. It consists of a little flat slide-rule with two movable scales, and a date table which is also on the face of the rule, and gives a number representing the intensity of the light as affected by the hour and date. The instrument in this form is not an exposure meter, but an exposure calculator, giving the exposure required by the subject for "sun," "cloud," or "dull," as may be the prevailing weather. If the user wishes to employ the apparatus as a meter, the little booklet of instructions is provided with a space to carry a narrow strip of Solio, and the time required to bring about a just perceptible tint on this is utilised in setting the scale of the meter. The instructions for using the meter are generally clear enough, but we think the employment of the actinometer might be described more lucidly. We can follow the description well enough, but it wants careful study to do so, and there are many, in our experience, who will not take that amount of trouble.

The Phillips meter, we note, uses plate speed numbers which are one-tenth the H. and D. numbers, and in several ways simplifies exposure calculation. The scale reads in seconds, minutes, and hours, and differentiates clearly between seconds and fractions of a second.

The apparatus is made in boxwood, in boxwood and ivorine, in ivorine, and in aluminium, and sells at 5s., 10s., 15s., and 20s. respectively, the postage on all except the last being 3d., on that 6d. It is, in each form, a neat and serviceable little instrument.

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400 H. & D.

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The Making and Use of a "Crayon Screen."

A METHOD of securing a photographic effect a little out of the common is described by Mr. Michaud in the current "Scientific American." The apparatus for the purpose to which he gives the name of the "crayon screen" may be made by the photographer himself. The function of this screen is to break the uniform shades or half-tones of the photograph into numberless and irregular dots, lines, or spots, so that viewed through a magnifying glass, they look very much like those produced by crayon drawn over rough paper.

The screen may be made by copying with the camera and without reduction, a layer of crayon uniformly laid over coarse drawing paper. Better results are obtained by copying, with considerable reduction, some irregular design made of spots, lines and dots, on a printed fabric such as is found at every draper's. If this screen negative is made on a film it should be placed in the printing frame between negative and paper. If it is a plate, it is most conveniently used in the dark slide, in front of the plate, and will then give, after a rather long exposure, a crayon effect negative. Most dark slides will take and keep in place two plates of ordinary thickness.

Photographs with the texture of oil paintings may be made with any good negative and the help of an "oil painting screen." This is merely a negative made from any framed oil painting, in which a piece of coarse cloth is substituted for the painting. A print is made with this negative. It is not toned or fixed, but with penknife and rule the cloth central part is cut out from the print. This operation gives two paper masks, one of the cloth and one of the frame. Printing is made first with the negative of the landscape or portrait with the frame mask laid on the sensitised paper, the holder being placed about normally to the rays of the full sunlight, without ground glass but with a glass plate interposed between negative and paper. The distance thus introduced destroys the small details, leaving only masses of light and shade. The "oil painting screen" is then used in lieu of the negative. It is placed in direct contact with the paper and frame mask until the canvas effect is clearly seen on the print. Last, the central mask is substituted for the frame mask, and a third printing gives the frame. The effect is the result of the contrast between the small details of the canvas and the seemingly broad technique of the picture over it.

The Alston Crystoleum Painting Outfit.

THE term "Crystoleum" was applied many years ago to a method of colouring photographs by mounting them face downwards upon glass, removing the paper support of the image, or rendering it translucent and then applying oil colour. The colour is seen through the transparent photograph, and in this way a very rich effect can be produced. The process since it was first originated has undergone a good deal of modification, and in the form in which it is now taught at the Alston Gallery and Studio, at 310, Regent Street, London, W., is known as "Alstona" painting.

The proprietors of the Alston Gallery lay themselves out to supply all the materials requisite for the process. They publish a convenient guide to it, and give free demonstrations on Tuesdays and Fridays. They also hold classes for those who are able to attend; but the whole process has been so far simplified by them that with one of their outfits and the book of instructions it is possible to get surprisingly effective crystoleum pictures from the very first.

We have recently had submitted to us the two outfits which are supplied complete. The first, at a guinea, is contained in a well-made japanned artist's colour box, and contains a palette, a dozen tubes of oil colours, glasses, books of instructions, parchment, brushes, palette knife, and the three mediums by which the photograph is mounted on the glass, rendered translucent, and then fitted to receive the colour.

Those who are anxious to try the Crystoleum process, but do not wish to spend so much on their outfit, will find in the "Beginners' Outfit" at 7s. 6d. a complete set of requisites on a more limited scale

Those to whom the coloured photograph appeals will find their production by means of one of these outfits a very pleasant occupation, and one in which the results obtained will fully reward the pains that may be taken in their production. The process may be applied to their own photographs, or, if they prefer it, silver prints of paintings or photographs can be obtained for the purpose.

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SALE AND EXCHANGE (for Amateurs only).—6d. per line of eight words. Minimum, 1s. Any portion of a line (eigbt words) counted as one line.

PROFESSIONAL AND TRADE.—Three words 2d., minimum 1/-.

All advertisements must be accompanied with remittance and should be posted in time to reach the offices, 20, Tudor Street, London, E.C., not later than first post Wednesday for following week's issue.

Advertisements are inserted as far as possible in the order received, and those received too late for one issue, or crowded out, are published in the first following in which there is space.

BOX NUMBERS.—For the convenience of advertisers, letters may be addressed to numbers at the office of the paper. When this is desired, 2d. will be charged for registration, and three stamped and addressed envelopes must be sent for forwarding replies. Only the number will appear in the advertisement. Replies should be addressed: "No. 000, c/o PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C."

DEPOSIT SYSTEM.—Persons who hesitate to send money to unknown persons may deal in perfect safety by availing themselves of our Deposit System. If the money be deposited with PHOTOGRAPHY AND FOCUS, both parties are advised of this receipt, and upon intimation of the arrival and acceptance of the goods, the money is forwarded, less a charge of 1/- for registration. The time allowed for a decision after receipt of the goods is three days, and if no sale is effected each party to the transaction pays carriage one way. For all transactions exceeding £10 in value, a deposit fee of 2/6 is charged. Cheques and Money Orders should be made payable to the Proprietors, MESSRS. ILIFFE AND SONS LIMITED, and addressed to them at Coventry.

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ADDRESS.—All communications for the Editor should be addressed: The Editor, PHOTOGRAPHY AND FOCUS, 20, Tudor Street, London, E.C.

TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

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INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.

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SEPIA TONES BY THE USUAL STANDARD FORMULAE.

SEPIA TONES BY SPECIAL FORMULA WHICH WE SUPPLY.

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"CELERIO"

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BOTH HAVE THIS VALUABLE "NONSTRESS" QUALITY.

ALL GRADES AND THICKNESSES AND CREAM CRAYON.

FREE. Send for New List showing actual mounted prints.

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Here and There.

FIREPROOFING FABRICS.

Where there is any risk of fire, as in bags to enclose the smoke from flashlights, etc., the fabric may be made fireproof by soaking it in the following solution and then allowing it to get thoroughly dry. The bath is made by dissolving three and a half drachms of boracic acid and four ounces of ammonium phosphate in a pint and a half of water. Half a pound of sodium sulphate in two quarts of water is a cheaper solution which according to the *Bulletin of Photography* may be substituted.

SILHOUETTE PHOTOGRAPHY.

Mr. A. H Baird in the transactions of the Edinburgh Photographic Society describes the method he adopts for making photographic silhouettes as follows: He uses a stand camera and a white sheet suspended over the doorway between two rooms, which are separated by a landing. In one room is placed a flash lamp, or, if preferred, an arrangement for burning magnesium ribbon. The lamp being one side of the sheet, the sitter is the other, and beyond this, again, is placed the camera. To make an exposure the screen is suspended, the camera set up, and the sitter posed, say, eighteen to twenty-four inches from the screen, and at right angles to it. To focus, a lighted candle is placed a few inches in front of the face, and having done this the candle is removed, the dark slide inserted, and the lens uncapped. Having lowered the lights ten grains of magnesium powder in the flash lamp, or a few inches of magnesium ribbon, are burned behind the screen. The distance of the illuminant from the screen should be approximately four feet. A slow plate is best, and, by preference, a backed one. The focussing should be done with full aperture and then the lens stopped down to f/11.

WHAT HAS TAKEN PLACE?

All the light being on the further side of the sitter, that side next the camera has been thrown into perfect shadow, and so, when the exposed plate is developed, we shall find that no detail of the sitter will show, while the white screen will develop up black. When a print is made, the opposite is the result; the sitter is black and the surrounding sheet white. If the work is done on a landing, then the sitter should be so placed that the face is not too near a wall, or there may be sufficient light reflected to give undesirable detail on the profile. It is then an advantage to suspend a piece of some kind of black, non-reflecting cloth on the wall just opposite to the face of the sitter, but this is not necessary if there is plenty of space between sitter and wall. Silhouettes are easily made by daylight. The sitter is placed against a window over which is put a piece of waxed or of fine tissue paper to act as a diffuser. Any portion of the window not required should be screened off by blinds or otherwise blocked out.

GELATINE PAPERS IN HOT CLIMATES.

Mr. S. K. Lawton, of Jaffna, Ceylon, writing in the "Penrose Annual," that has just been published, states that trouble with prints on gelatine P.O.P. and bromide paper only arose in his case at Colombo where the air was not only hot, but damp. P.O.P. prints a few months' old showed perceptible signs of fading, and bromide prints had well-defined streaks running from their borders, and appearing on close examination as if the gelatine had been scraped away from those parts. "While looking about for a cause, I noticed the trimmed off margins of P.O.P. prints lying on the floor, sticking to the feet of those walking over them. These trimmings retained a good amount of moisture, which should have caused some action on the reduced silver composing the picture and the resultant fading. In the case of the bromide prints the damp atmosphere had made the gelatine succulent, and attracted the attack of insects in search of food.

THE REMEDY.

"Thoroughly hardening the prints in a bath of chrome alum, one grain to the ounce of water, rendered them impervious to moisture, and prevented the consequent liability to fading, as also to some extent the insect attacks. A weak solution of arsenic was applied to a bromide print, which, after keeping in light and air for about two months, did not show any deterioration. This will ward away insects, but cannot be relied upon, as it should exert some action on the silver compound." Mr. Lawton points out that a native Tamil physician recommended him to apply a decoction of the root of the aquatic plant "Sweet Flag." This applied to gelatine prints will not have any deleterious effect on silver compounds, and should keep away insects.

CLEANING DISHES.

When dishes get too stained, although extreme care is taken that they are thoroughly cleaned with Sunlight soap immediately after being used, the marks can be effectually cleared (even from the developing dish, which is the one that is generally soiled the moist, and which it is so important to keep from all contaminations) by moist earth obtainable from any pond, or easily got by mixing a few drops of water on common soil.—DUM DUM.



THE WAITS. BY W. FRANCIS BROOKS.

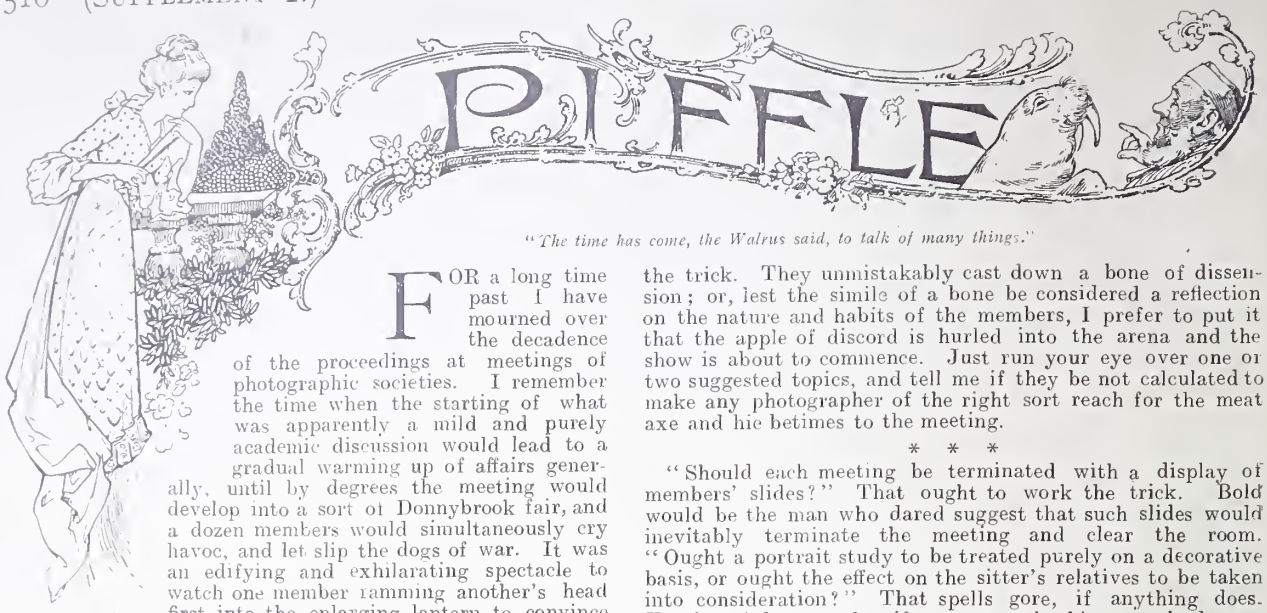
Awarded the Bronze Medal in the Special Subject Competition just closed.

A Merry Time.

Most photographers have their troubles—the troubles increase with shoddy apparatus. But the user of a "SOHO REFLEX CAMERA" has a merry time all the time. That is because the "Soho" does its work so thoroughly, effectively, and easily. Camera work with the "Soho" is always a delight, no matter what the season, or what the weather. The "Soho" is always ready and can be operated with the greatest ease and comfort. In point of workmanship and value it is the most desirable camera on the market.

See the "Soho" at your dealer's or write for the "Soho Free Booklet," which explains the camera in detail and shows results secured with it. WRITE NOW.

Marion & Co., Ltd., 22-23, Soho Square, London, W.



"The time has come, the Walrus said, to talk of many things."

FOR a long time past I have mourned over the decadence of the proceedings at meetings of photographic societies. I remember the time when the starting of what was apparently a mild and purely academic discussion would lead to a gradual warming up of affairs generally, until by degrees the meeting would develop into a sort of Donnybrook fair, and a dozen members would simultaneously cry havoc, and let slip the dogs of war. It was an edifying and exhilarating spectacle to watch one member ramming another's head first into the enlarging lantern to convince him that the bellows sagged in the middle, while a third member persuaded a fourth to arise from his seat by using the white-hot lime as an incentive.

* * *

It was fine to see a photographer lay down the law on the development of collodion plates, raving at the top of his voice, his face like a fire balloon, and his silver nitrated fist slamming sawdust out of the chairman's table. Grateful it was to hear a little member, pale with suppressed fury, hiss out the charge that a member ten times his size had given expression to unveracious assertions; his actual words being much shorter and more homely, but to the same effect as those here set down. And it was worth while being a member of a society just to see an indignant chap, who had been hopelessly flattened out in an argument, stalk up to the table with what dignity he could muster (which was not much), slam down an old envelope with a pencilled statement thereon, surmount it with a sixpence, four pennies, two half-pennies, and a postage stamp, and remark, "Mr. President and gentlemen (and, oh, the bitter scorn he conveyed in the Mr. and the gentlemen), there is my formal resignation and my year's subscription. I prefer to associate with gentlemen." And so, exit.

* * *

They were good old days. Meetings were meetings then, and discussions were discussions. The latter led to enlightenment sometimes, and to the hospital often. An up-to-date worker who rashly ventured the opinion that pyro was only an old fogey's developer would be in splints an hour afterwards; and one who referred contemptuously to the use of a huge field camera would certainly be the subject of an inquest.

* * *

Now what do we find? Callow ignoramuses arise, and in a lackadaisical way give vent to the most awful photographic heresies, and there is none to say them nay or to smite them into instant annihilation. Why, I have seen a member asleep at a meeting during a so-called discussion. Actually and soundly asleep. Time was when some enthusiastic discusser would have taken advantage of his condition and used him as a club. Besides, under the guise of photographic meetings we find nowadays such flabby things as whist drives, cinderellas, concerts, and conversaziones; while other societies think they are doing something very saucy and gay-doggy when they organise a supper not unconnected with tripe and onions, to say nothing of the mad dissipation of a glass of bxxr.

* * *

Thank goodness there is a prospect of a change. I may yet live to see the fur fly once again. There may be hats in the air and wigs on the green as of yore. I have great hopes. For, look you, in another paper there is appearing week by week a number of suggestions as to topics for discussion on photographic societies' open nights. Some of them ought to do the trick. They unmistakably cast down a bone of dissension; or, lest the simile of a bone be considered a reflection on the nature and habits of the members, I prefer to put it that the apple of discord is hurled into the arena and the show is about to commence. Just run your eye over one or two suggested topics, and tell me if they be not calculated to make any photographer of the right sort reach for the meat axe and hie betimes to the meeting.

* * *

"Should each meeting be terminated with a display of members' slides?" That ought to work the trick. Bold would be the man who dared suggest that such slides would inevitably terminate the meeting and clear the room. "Ought a portrait study to be treated purely on a decorative basis, or ought the effect on the sitter's relatives to be taken into consideration?" That spells gore, if anything does. Try it. Ask a member if you may take his portrait decoratively and spare his relatives' feelings. You may rely on an answer—of a sort "At an exhibition ought not all the information concerning the exhibits to be published?" Very promising. Spring that on a meeting immediately after the annual exhibition. Fix the right member with your eye while you emphasise *all* the information, and then elaborate it as meaning who found the subject for him, who made the negative, where he had the enlargement done, what firm mounted and framed it, and whether the work is paid for or ever likely to be. It will be as well to have the member tied to his chair first, or to make arrangements for his being capably held.

* * *

By way of a practical start in reviving the discussions of the good old days I am prepared to attend (under satisfactory guarantees) a meeting of the North Middlesex Society. For a member of that collection of curiosities has had the effrontery to send me a postcard on which he claims to have caught me napping. He is absolutely incoherent with glee. It appears that in describing the outcome of an attempt to produce a home-made developing dish I referred to the result as being "irregularly rectangular."

* * *

Of course, I used the expression "irregularly rectangular" in the same way as we say that a thing is roughly circular or approximately pentacular. Anyhow, when I attend the meeting I will bring an actual example of the sort of thing I mean. I have got plenty. They formed integral parts of an old wall that blew down recently, and I have found that one of them suitably slung in a knotted cloth affords a most potent and effective aid to argument. I should advise the members of the North Middlesex to wear reliable helmets for the occasion. And if any other photographic societies are hankering after excitement I am open to quote a price for attending meetings to take part (either pro or con, I don't care a dump which) on the question, "Is Photography Art?????" That ought to satisfy everybody.

THE WALRUS.

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PHOTOGRAPHY AND FOCUS.

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December 28th, 1909. TUESDAY. No. 1,103. Vol. XXVIII.

Portraiture on Winter Evenings. II.

Securing lighting effects: a sitter apparently taken by lamplight, with the lamp showing: the use of magnesium ribbon: methods involving two exposures: some suggested subjects.

THE subject of our leading article this week is practically a continuation of, or rather a supplement to, that which we printed in our last issue. It will be remembered that at the outset we pointed out that portraiture by artificial light might be divided into two classes—one in which a portrait of the ordinary kind, with a good general illumination, is all that is attempted, giving a result very similar to that which is to be obtained with daylight, and the other when the source of light itself plays a part in the picture. It is this latter class of picture to which we now refer.

This class of portraiture, generally speaking, does not give so satisfactory a likeness of the sitter as the former class will do—in fact, where a likeness is what is aimed at it is perhaps better not to employ it, and to stick to the more ordinary and commonplace methods of work. But where a picture rather than a likeness is what is wanted the second method is greatly to be preferred, while its extended possibilities and the many variations which it permits, with an almost limitless scope for ingenuity both in design and in carrying out the design, ought to make such methods very popular with amateur photographers sufficiently advanced to be able to follow them.

A Lady working by Lamplight.

In case the reader has not got a very clear idea of the nature of the portraiture to which we refer, we will take a very simple case. The subject is a lady sewing. It is night time, and she is sitting close beneath a shaded lamp, which provides the light by which she can see her work. There is the possibility of a pictorial success with such a subject, but the method of dealing with it has got to be thought out.

It will never do to set up the camera before her and let off a flashlight. It might give us a very good likeness, but the lighting would at once do away with all the suggestion that it is by the light of the lamp that she is working. The lamp, if it figured in the photograph at all, would merely look like an unnecessary and redundant accessory. We must start out to deal with such a subject with our minds made up that, somehow or other, the light by which she is photographed must proceed from the lamp itself.

If we attempt to use the lamplight we shall find that it is not sufficiently actinic for our purpose unless we can give an exposure running into minutes at the very least; but it may be possible to remove the inside of the lamp in some way, so as to allow of magnesium being burned in it. If it is possible to do this without spoiling the lamp itself, the problem before us is very much simplified.

Magnesium Ribbon under the Lamp Shade.

If the shade of the lamp is opaque, it may be practicable to suspend beneath it, where they will not be visible from the lens, a few short pieces of magnesium ribbon. Then, all being arranged, the plate put in, the slide drawn, and the cap taken off the lens, we hold a piece of card near the lens so as to cut off any stray light from it while the ribbon is lighted, move both card and ourselves quickly out of the way as soon as it is burning, then cap the lens, and proceed to develop.

In a case of this sort it is sometimes advisable to burn a little of the ribbon out in the room on the opposite side of the sitter, so as to provide a little

MEMORANDA *for the week.*

Not to miss the next issue of "Photography and Focus." Commencement of a new volume, and of the new competition.

general illumination for the shadows and those parts of the subject that are most distant from the lamp, but in doing so we have to be careful not only not to overdo the illumination, so as to spoil the effect we are after, but also not to lose that concentration of the lighting and shrouding of unnecessary details in the general darkness, which the method of lighting gives, and which is a very valuable factor towards securing a pictorial success. We must also take care, if the top of the lamp is visible in the picture, to lead away the smoke of the burning magnesium. This can be done generally by means of a tube of cardboard or of brown paper.

The Method with Two Exposures.

It may not be possible to fit the lamp for burning magnesium, so some other device must be adopted. We may arrange the subject lamp and all, and then bring a sheet of cardboard and fix it up a couple of feet or less in front of the lens, so that, while it does not hide the sitter, it just cuts off the lamp. The exact position for the card must be found by trial, looking at the image on the ground glass of the camera. If it is near the lens its edge will be quite out of focus, which is what we want. Then the lamp may be moved away for the time being, and some magnesium ribbon burned in its place to give the sitter sufficient illumination. The lamp is then replaced, the card removed, and an exposure of half a minute or so is given to get the image of the lamp itself on the plate. Provided everything behind the sitter is dark, there is no need for her to remain during this second exposure of the plate. The result on development, if all has gone well, is to give us a portrait of our subject lit apparently by the lamp, which itself figures in the picture.

It is not advisable to use for this purpose a lamp which allows the naked flame to be seen on the screen, as in such a case there is a great risk of reversal, the flame being so much over-exposed that in the print it will appear black instead of white. But if the lamp has an opal or ground glass globe, or if its shade comes just low enough for the purpose, the realistic effect that can be got in this way is very surprising.

Candlelight Effects.

The principle is one, as we said at the outset, which allows of infinite variation. For example, we can get candlelight effects, in which the lighting apparently proceeds from a candle, the flame of which is visible in the picture.

One way of doing this is to take care that the candle itself comes against some dark background. Then, a piece of card being fixed so as to hide the candle for the time being, a piece of magnesium ribbon is burned in its place, the card being then removed and a supplementary exposure given to the candle. For a short time during this supplementary exposure the candle should be alight.

Some Subjects Suggested.

No doubt variations will suggest themselves to our readers. A dinner table group, photographed apparently by the light of a shaded lamp that is on the table; a watchman holding up a lighted lantern; a man lighting his pipe, a piece of magnesium ribbon burning in his hand instead of the match, are a few suggestions.

If the model is seated in an easy chair, we may put a fender at her feet, and burn the requisite amount of ribbon just beyond it and only a few inches from the floor. It is quite easy in this way to get a firelight effect, the source of light in this case not itself figuring in the picture, but being sufficiently indicated by the fender and by the low point from which the illumination is proceeding.

Concerning the Exposure Needed.

The actual exposures for work of this kind depend so much upon the conditions prevailing at the time that it is not possible to give data that will be definite enough to do away with the need for experiment. Trial is the only satisfactory plan; but we may say that with very rapid plates and a lens working at f/8 or less a couple of feet of magnesium ribbon judiciously used will do wonders. The negatives which are obtained are often very queer-looking things—so queer that it is well to make a hard and fast rule always to print them before condemning them, as the oddest negatives, as we pointed out last week, mere plates of clear glass with a few little patches of image here and there on them, often give most effective prints. X.



The End of the Year.

With this issue of *Photography and Focus* we complete the third volume of the combined journals, the twenty-eighth of *Photography* itself. A title page and index is in preparation, and will be sent as soon as ready, free of charge, to any readers who forward a stamped addressed envelope to our publishers for it. The new volume will contain several features of novelty, which, we hope, will appeal to a very wide circle of readers, and will retain all those to which its present popularity is due. In 1910, as in former years, our aim will be to make *Photography and Focus* of interest and use to every camera user, not limiting it to the comparative few who exhibit at photographic exhibitions or play a prominent part in photographic society life, but embracing in its scope the many thousands who find in the camera their hobby, whether they belong to a photographic society or not. Of this vast body, the societies, in spite of the excellent work they do, only touch the very fringe; but we believe that a great majority of such photographers can be reached by a popular, accurate, and informing newspaper, such as it is our aim to make and to keep *Photography and Focus*. If any reader has found it helpful in the past, may we remind him that he cannot repay us in a more practical and serviceable fashion than by recommending the paper to his photographic friends.

The Copyright Committee.

The report of the committee of the Board of Trade, which has been considering the whole question of the law of copyright, has now been published. The references to photography which in contains are not very numerous, but they are important, and, we are glad to note, are all in the direction of securing to the photographer a property in the outcome of his ability. One recommendation is that the necessity for registration should be done away with. In this connection it is interesting to note that the committee states that "one of the witnesses laid stress on the importance which he attached to the requirement of registration (in regard to photographs) as a means of ousting frivolous claims for damages if it should not have been effected. But it seems to the committee that this example serves rather to illustrate the unfairness to authors of making their ability to enforce their rights depend on compliance with a technicality. . . . ." "Anyone who copies the products of an author's genius ought to be taken to be doing so at his own risk," says the committee. This is only commonsense, but it does not follow that it will ever become law. As regards the duration of the protection, the report favours the period of the lifetime of the author and for fifty years afterwards. In the case of work done by employees, whether the employer is an individual, a firm, or a company, the committee recommends a period of fifty years from publication. It will be seen that the nett result as far as photographers are concerned would be to put them on a level with other artists, while the duration of copyright in general would be increased.

Collodion P.O.P. and Cracks.

The growing popularity of collodion papers has brought us a number of enquiries as to the cracks in the collodion coating which sometimes manifest themselves in the stages of fixing and washing. Instead of a reply in our usual column, it will perhaps be better to deal with the subject here. Most of the cracks, we may point out, are due to attempts to straighten out the prints. All collodion papers have a tendency to curl immediately they are wetted, and it is in the effort to straighten them that the trouble arises. The proper course is to keep them flat from the first. To secure this it is well to use big dishes, with not more than half an inch depth of liquid in them, and to put the prints in them face downwards at one end of the dish, gently patting each one down to the bottom, and making a kind of zigzag pile of them. Then, commencing at the top of the pile, each print may be transferred in a similar way to the other end of the dish, and so on throughout. It is well to commence the washing in this way, giving the prints from four to six changes of water, after which they may be washed with less attention in any convenient manner. The prints must also be prevented from curling in drying, and the way to do this is to blot them off between pure photographic blotters, after which they may be laid face down on cheese cloth, towels, or photographic blotters, similar blotters being laid on top, the weight of which will keep them flat. The prints must not be stacked up in piles, but should be laid out in single layers, as otherwise there is not a free circulation of air, which is essential, quick drying being an important point in the use of collodion papers.

A Flashlight Explosion.

Elsewhere in this issue we refer to the county court case at Manchester in which the plaintiff secured damages from a firm of photographic dealers because, having purchased some Agfa flash powder from them, he used it in a blow-through flash lamp, and, as might have been expected, produced an explosion, which blew his lamp to bits and injured him about the face. The judge admitted that the powder was recognised by experts as unsuitable for the lamp, but appeared to think that the operator sent by Lafayette, Ltd., to photograph the Wesleyan Conference could not be expected to be an expert in flashlight work. He certainly did not prove to be one. The extraordinary thing about the case is that any operator employed by a firm of standing should not know, not that this or that flash powder was explosive—that was not the question—but that *no flash powder whatever* under any circumstances should be used in the lamp. All these blow-through lamps are made for burning plain magnesium powder, and if used with any flash powder can only bring about an explosion.

Next Week's Issue and the New Competition.

THE next issue of "Photography and Focus" is the first of a new volume. With it, amongst other new features of interest, we shall publish the first section of an entirely new competition, in which there are offered valuable prizes, no entrance fees required. This will take the form of a series of articles describing the photographic and other adventures of a certain lady, entitled—

"THE EXPOSURES OF KITTY."

How she took up photography, and to what it led. Each article will have a series of photographic questions based upon it, intended to test the photographic knowledge of the reader, and, by impressing important facts upon his memory, to help him in his photographic work. Valuable prizes are offered for the best answers to the questions. The series will be complete in six issues.

QUERIES AND REPLIES

REGULATIONS.—(1) Envelopes must be marked "Query," and the "Enquiry Coupon" found elsewhere must be enclosed. (2) The full name and address in addition to a *nom-de-plume* must be given. (3) Except in the case of readers abroad, only *one* question on *one* subject is allowed in each letter. If more are asked only *one* will be selected for reply. (4) Prints may be sent for criticism, but a separate coupon must be sent with each print, and they must be accompanied by a stamped addressed envelope (not loose stamps) for their return, or they will not be criticised. Queries are dealt with in strict rotation in the order received. Only "Urgent Apparatus" queries will be dealt with by post, and then only when they concern apparatus actually in the possession of the enquirer on approval, for which purpose a stamped addressed envelope must be enclosed.

A. DANES (Carluke).—We have handed your letter to our publishers.

NOM DE PLUME (Hull).—No. 1 or No. 6 would be best. Certainly a half-plate lens is to be preferred, for the reason given.

H. F. VINCENT (Ivybridge).—We cannot trace the advertisement referred to; but the Crown Manufactory, Rotherham, supply them.

V.G. (Churwell).—The Goerz Celor is the best. We could not answer in last week's issue; your card arrived two days after it had gone to press.

W. J. PLOWRIGHT (Nottingham).—They can be obtained from Messrs. W. Butcher and Sons, Ltd., Camera House, Farringdon Avenue, London, E.C.

GASLIGHT (Dumfries).—"The Complete Photographer," price 10s. 6d. nett, or post free from our publishers 10s. 10d., is the most complete and the most recent.

SELF TONING (Sydney, N.S.W.).—Our leaderette this week should answer your first enquiry. As to the second it might perhaps be used with incandescent gas without injury, but it is risky, and we should advise you not to try it.

DURLSTON (Newport).—There is only one way, and that is to spread some fine emery and water, knife powder will do, on the stopper and grind it round and round, until it fits. The quantity of grinding depends on the extent of glass to be removed to make a fit.

WALLY (St. Neots).—The action is to prevent the oxidation of the developer, and with it the formation of dark coloured products which would stain the film. There is no advantage, but a positive disadvantage in using more than is required to effect this purpose.

W. A. RANKIN (Glasgow).—You must enclose a lamp so that no light can get out except through a window of ground glass, and the other arrangements may be as in the diagram, except that instead of the lamp being above the mirror it may be at one side. The details will depend on the lamp, etc., you propose to use

TAYSIDER (Dundee).—Certainly you can do what you propose, but the exposure will be extremely short if you use ordinary or negative plates, say a second or two at three feet from the gas. A better result as regards colour of picture and fineness of image is got by using the special transparency plates, but the principle is the same. Your enquiry was three days too late to be answered before Christmas.

M. BOARDMAN (Groombridge).—Card received. We are glad all is satisfactory.

W. ROOT (Rochdale).—The order is 1, 3, 4, 5, 2, but there is little to choose between 3, 4, and 5.

ALBERTA TERRACE (Nottingham).—We are much obliged for the card, the contents of which we note in this issue.

JAY (Burnley).—The paper will be all right in the spring if it is left in the tin box in which it is supplied unopened. Many thanks for your good wishes.

ECONOMIC (Stony Stratford), POSTCARD (Starcross).—They are to be obtained from Messrs. Masons' Photographic Stores, Queen Victoria Street, Leeds.

J. DONOVAN (Hoxton Square).—Messrs. Henry Lindenmeyr and Sons, 11, Upper Thames Street, London, E.C., would be the most likely people to supply it in quantity.

E.R.A. (Newark-on-Trent).—You would get it much cheaper if you bought it with the camera, and we cannot see that there would be any disadvantage in doing so.

LENS (Burgh).—If you mean the selling value, it is something less than ten shillings. It is good enough as part of the camera, but is hardly worth considering apart from it.

BUDDHA (Bangalore).—Many thanks for the card and kind wishes. We hope, if it is a fair specimen of your work, that you will enter for the "Greater Britain Competition."

H. A. EDWARDS (Florence).—A. Piamastelli, Via Calimara, or P. Shisa, Via Condotta, Florence, will supply you with a Kodak and the necessary sundries. Your card was sent to Harp Alley. Please note the correct address.

R. 690 (Cheltenham).—The sulphite will not in any way endanger the permanence of the prints, but we are at a loss to know why it should be necessary. There must be something radically wrong with the water supply.

S. HARRISON (Walsall).—Toning is very much delayed and may be stopped altogether if the temperature of the solution is too low. We suspect there is nothing more at fault than this. If you leave the toning solution and dish in a warm room for an hour before use, and use them therein, you should have no further trouble. If it still will not work, there is something wrong with the composition of the bath, and it will be best to throw it all away and start afresh.

C.C. (Acton).—You do not state the rapidity (f number) of the lens, so we cannot help you.

TOM STONE (Bath).—Yes. See reply on page 454 of *Photography and Focus* for December 7th, 1909

W.F.P. (Clapham).—Any dealer will supply it; if you have any difficulty you had better write direct to the agents, Charles Zimmermann and Co., 9 and 10, St. Mary-at-Hill, London, E.C.

J.O.P. (Huntingdon).—It is not desirable to add it to the fixing bath, but the plates might be rinsed after development and placed for a minute in formalin one part, water ten parts, then rinsing and fixing them.

S. EZRA (Johannesburg, S.A.).—We are glad to hear you find "The Complete Photographer" so helpful. The formula is one which we ourselves use constantly. Both solutions keep for some months at least in stoppered bottles which are only opened about once a week. A good deal depends on the frequency with which they are opened, and so are allowed to get a further supply of oxygen.

C.C.C. (Dudley).—The trouble is caused no doubt by reflections from the parts which have had their black varnish worn off. It is easily replaced. A little lamp black or vegetable black is mixed up into a thick cream with gold size, and when thoroughly incorporated the mixture is thinned with turpentine until it can be easily applied with a brush. If there is too much of the gold size it will dry glossy, if too little the black will rub off. A trial will show directly whether the proportions are right or not. It dries very quickly.

BROWNIE (Keighley).—There is never any need to apologise for a long explicit letter. It is generally far more easily answered than a brief note in which much of what we must know to be able to be of service has been omitted. Your trouble is due, no doubt, to the stray light in the room, which might not be enough to fog the paper during development, but is quite enough to do so during the long time that it is pinned up on the easel. Much could be cut off by making a tube of card which might be placed between the lens and the paper, so as at least to protect it from reflected light from ceiling or walls.

Owing to the Christmas Holidays we have had to go to press a day earlier than usual. Queries received too late for this issue will be answered in the next.

The Week's Meetings.

MONDAY, DECEMBER 27TH.

Equitable P.S. "Gaslight." Messrs. Bamforth and Mann.
Colne C.C. Competition.

TUESDAY, DECEMBER 28TH.

Ashton-under-Lyne P.S. Prize Slides.
Nelson C.C. Postcard Competition.
Glasgow S.P.A. Lantern Slide Competition.
Otley & D.C. & A.S. "Making Lantern Slides with Borders." J. Pedley.
St. Helens C.C. Print Criticisms.
Neath & D.P.S. *Photography and Focus* Prize Slides.
Nelson P.L. "Night Photography."
Ferndead W.G.P.S. Exchange Night.

WEDNESDAY, DECEMBER 29TH.

G.E.R. Mech. Inst. "Afar in the Fatherland." W. L. F. Wastell.
Balham C.C. "Large Prints from Small Negatives." W. F. Slater.
Rochdale A.P.S. "Paris." S. Hoyle.
Croydon C.C. Conversational Evening.

THURSDAY, DECEMBER 30TH.

Longton & D.P.S. "Photographic Facts and Fallacies." Burroughs, Wellcome.
Weybridge A.P.A. "Large Prints from Small Negatives." W. F. Slater.
Burnley C.C. Prize Slides.

THURSDAY, DECEMBER 30TH (*continued*).

Watford C.C. "Clouds in Landscape." J. Linley.
Rodley, Farsley C. & B.P.S. "Pinhole Photography." J. R. Coulson
Richmond C.C. "Photography at the Zoo." H. F. McShane.
Liverpool A.P.A. Prize Slides.

SATURDAY, JANUARY 1ST.

Glasgow & W. of S.A.P.A. "Bromoil." F. J. Mortimer.

MONDAY, JANUARY 3RD.

Equitable P.S. *Photography and Focus* Prize Slides.
Wolverhampton P.S. "Pinhole Photography." L. C. Login.
Bradford P.S. "Toning of Gaslight Prints." W. F. Slater.
Colne C.C. Members' Slides.
Catford & F.H.P.S. Affiliation Print Competition.
S. London P.S. Prize Slides.
Scarborough & D.P.S. Y.P.U. Portfolio of Prints.
Erdington P.S. Whist Drive.
Bowes Park & D.P.S. "Camera at Home." E. T. Holding.
Southampton C.C. Annual General Meeting.
Canterbury C.C. Annual General Meeting.
Leek P.S. Monthly Lantern Night.
Leeds C.C. "Tramps with a Camera." W. Thomas.
Walsall P.S. "Pictures at the Picnic." E. A. Day.
Walthamstow P.S. Lantern Evening.

Societies will have their meetings announced here if the syllabus is sent to us at the beginning of the Session or from time to time.



MINIATURE PAINTING. A class for this work is arranged at the L.C.C. Central School of Arts and Crafts, Southampton Row, London, W.C., on Tuesday and Thursday evenings. Those interested can obtain particulars from the secretary at the above address.

COWES CAMERA CLUB EXHIBITION. The silver challenge plaque for the best picture was won by E. Alwyn Biscoe; that for the best picture by a member of the Isle of Wight Photographic Society by G. A. Jones; that for the best picture in the members' classes by G. A. Jones. The award for the exhibitor of the best four pictures in the members' classes was won by W. E. Hillyer.

PHOTOGRAPHING AN EXHIBITION by flashlight. "Camera," writing in the "Glasgow Evening Times," notes that a member of the St. George Club photographed the exhibition of that body by flashlight, and points out that if any record of an exhibition is to be got when days are so dark, and the lighting, when there is any daylight, is so unequal, magnesium is a necessity.

A FLASHLIGHT EXPLOSION took place at Wolverhampton on the 15th inst., at a meeting in the Drill Hall that was to be addressed by Mr. George Wyndham, M.P. The photographer, H. G. Peat, was badly injured about the head and face, and another person scorched by the explosion. No explanation how the flash powder came to get ignited has been obtained; the photographer himself was not handling it at the moment.

NATURE PHOTOGRAPHIC SOCIETY. A society with this title has been found to provide a fellowship amongst nature photographers all over the world. The inaugural meeting was held on the 11th inst. at Leeds, under the presidency of Mr. John J. Ward, when the membership already numbered thirty, including some of the best known nature photographers. The honorary secretary, who will be glad to supply full particulars, is Mr. Carl Edwards, of Woodlesford, Leeds.

AT THE SHETTLESTON AND DISTRICT Camera Club's exhibition the challenge cup for the best picture in the competitive classes was won by J. C. Wilson. The other awards were as follows: Class I.—1st, J. C. Wilson; 2nd. J. Martin; highly commended, J. C. Wilson and J. Martin. Class II.—1st, J. C. Wilson; highly commended, A. D. Wilson and J. Martin. Class III.—1st. D. Kirby; highly commended, W. Young and D. Kirby. Class IV.—1st, J. Martin; highly commended, J. Martin and A. D. Wilson. Class V.—1st, J. C. Wilson; 2nd. J. Martin; highly commended, J. C. Wilson.

APPRECIATION. The current number of "Wilson's Photographic Magazine," out of a total of forty-eight pages, has eighteen that are taken from *Photography and Focus*, thirteen with acknowledgment, and five without.

THE CITY OF LONDON and Cripplegate Photographic Society holds its exhibition from February 21st to 25th, entries closing February 4th. Full particulars and entry forms can be obtained from the honorary secretary, Mr. H. S. Cuming, Cripplegate Institute, Golden Lane, London, E.C.

SCREEN PLATE PROCESSES. The first public exhibition of photographs in colours upon all the four screen plates now on the market—the Autochrome, Thames, Omnicolore, and Dufay—was on Friday, the 17th inst., when the editor of *Photography and Focus* lectured on colour photography before the Coventry Engineering Society. The illustrations aroused a great deal of enthusiasm, particular applause being given to a magnificent series of autochromes which were lent by Messrs. Lumière. The lecturer spoke very highly of the mechanical perfection and freedom from residual colour of the Dufay screen.

CARBON PRINTING. Mr. W. Angold, at the Willesden Polytechnic Photographic Society, said that for sensitising the tissue he used the following bath:

Potassium bichromate (10% solution)	...	1 ounce
Acetone	...	1½ ounce

The great advantage of this bath was that tissue could be sensitised in it, and would be perfectly dry and ready for use in half an hour. It is applied to the tissue by means of a brush. He found that the best brush for the purpose was made by folding a piece of flannel four times and then doubling it over the end of a strip of glass two inches wide and six inches long, holding it in position by means of a rubber band. To apply the solution, thirty minims of it should be poured into the middle of a half-plate print, and quickly brushed all over. It should be pinned up in the darkroom, or in a dark cupboard to dry.

A FLASH POWDER EXPLOSION. At the Manchester County Court, E. Levin, operator in the employment of Lafayette, Ltd., received £25 damages from the Rothwell Photographic Material Co., of St. Mary's Street, Deansgate, Manchester. The plaintiff used a Todd-Forret flash lamp, and was supplied with Agfa flash powder by the defendants. He used the flash powder in the lamp, and as a result an explosion occurred at which his face was burned and his eyes injured. It was shown by the defence that the powder was supplied with a printed warning, "Do not on any account attempt to fire it in any description of magazine or blow-through lamp." Judge Parry said that it was perhaps a good thing that the accident happened if only because it called the attention of the public and the very large number of young people who purchased these things to the fact that they should be used very carefully and only under certain conditions.

THE TELLA CAMERA CO. has fitted up a special enlarger showroom at 68, High Holborn, London, W.C., so that customers can see an enlarger at work before purchasing one. The company has been appointed the London agent for the Lilywhite plates and papers.

"THE VALUE OF MIST to the Photographer" was Mr. Winton's subject at the Nelson Camera Club. He said that mist helped very much to differentiate the planes of the subject, and was also useful at times to block out some undesirable objects.

THE HOVE CAMERA CLUB'S EXHIBITION resulted in awards being won by E. Mant, W. W. Palmer, L. J. Steele, Rose Tompsett, and V. E. Morris (2). Works by L. J. Steele, V. E. Morris, F. H. Rake, S. F. Staffurth, H. Violet Adamson, W. Bailey, H. M. Roberts, Miss Boynton, V. G. Young, W. Chater Lea, Amy Frinneley, and Dr. Spitta received honourable mention.

PAPERS FOR BROMOIL. Mr. C. H. Hewitt, at the Ilford Photographic Society, said that he had found the Ilford, Wellington, and Barnet bromide papers very satisfactory for bromoil, the Ilford being the hardest and the Barnet the softest of the three. The Barnet paper, in fact, he found soft enough for the acid bath to be dispensed with altogether in hot weather.

THE "ENSIGN" SMOKING CONCERT. The fourth annual "Ensign" smoking concert was held on the 18th inst. in the Prince's Hall of the Hotel Cecil, where the spacious room was crowded. An enthusiastic toast for the prosperity of Houghtons, Ltd., was responded to by the veteran founder of the firm, Mr. George Houghton, whose photographic activities date back to the year 1834.

AN ENLARGING COMBINATION. The Record enlarger of Messrs. W. Butcher and Sons we reviewed in our issue for October 12th. Messrs. Butcher have now put on the market a combination of enlarger, baseboard, and easel, which is a convenient piece of apparatus. In quarter-plate size, with 5½in. condenser, and an easel to take 15 × 12, but without objective, this sells at £6 6s.; other sizes in proportion.

SHYING PHOTOGRAPHERS. In most cases the point from which the photographer first sees his subject is the best to be found, writes Mr. Sutcliffe in the "Yorkshire Weekly Post." Photographers are like sensitive horses, they shy when anything strikes their eye. They do not, perhaps, dance about trying to get a better view of the thing, for they are not burdened with blinkers like the horse, but there is no doubt they stop without knowing why when there is anything worth pointing at. If there should be any one who has not been suddenly struck on the head with an imaginary blow in the presence of great beauty when out shooting with the camera, let him employ a couple of keen workers as pointers, allowing them to walk in advance. When he sees them both stop suddenly, he may safely bring his camera up to them and fire it off, and rest sure that he has bagged a picture worth bagging.

Enlarging in One Direction Only.

Written and Illustrated by H. WILD. *Special to "Photography and Focus.*

THE mathematical accuracy of the lens-drawn image is usually one of its most valuable properties: but to the photographer who wishes to record his impressions rather than to make accurate diagrams of the details, the lens image is often very disappointing. Places that impress by their height do not seem high enough: and big things, though they may take up a good part of the negative, do not give the idea of bigness. Much may be done by a careful choice of point of view and by suitable atmospheric conditions: but even then we often wish we had the power to stretch the negative (or rather the resulting print) either higher or wider. I have tried several ways of getting this effect, but without much success until quite lately: but I think I have at last found a method that promises well. I have not had time to experiment much as yet, but the three prints reproduced will show that the method is at any rate workable.

At first sight one would take these photographs for different views of the same subject, but, as a matter of fact, they are all from one and the same negative. No. I. is an ordinary contact print, and Nos. II. and III. have been enlarged, but in one direction only. No. II. has been reversed in printing, to make comparison easier; and it will be seen that, while it is about the same height as No. I., it is nearly twice as long, while No. III. is the same width as No. I., but nearly twice as high. There is no curvature of any of the straight lines, and no apparent distortion.

The apparatus for "stretching" prints in this way only requires one article not usually found in the photographer's outfit, and that is a convex mirror with a cylindrical curvature. Mine is a very old one, and measures about 9in. × 7in., with a curvature of about ¾in. in the 9in. For the rest, an enlarging lantern and a printing frame as large as, or larger than, the required print complete the equipment.

The negative is inserted in the carrier of the lantern, and all arranged as if for ordinary enlarging, except that the convex mirror is placed in the path of the rays at an angle of about 45°, and the printing frame at an angle of 45° with the mirror, and at 90° with the condenser. Fig. IV. is a

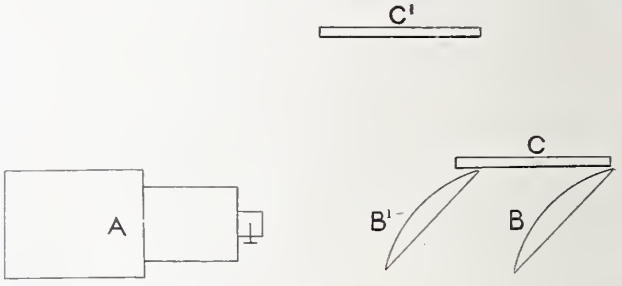


FIG. IV.

plan showing the arrangement, in which A is the lantern, B the mirror, and C the printing frame. I find it best to keep the mirror and frame as close as possible at one end. An alternative position is shown at B^1 and C^1, but it will be found that the definition is not so good; still, if a print is required larger than the dimensions of the mirror, this must be adopted. It will be found necessary to stop down to about f/22 or f/32 to get good definition, but with incandescent gas for the illuminant the exposures are not excessive.

The best way of working is to arrange the mirror and the printing frame (which should have a piece of clear glass, backed with a piece of white paper, in it, on which to focus) at about their respective



No. III.



No. I.



No. II.

angles on a piece of board, *i.e.*, a small drawing board. This is then moved backward and forward in the path of the rays from the lantern until the image is the desired size. It is then focussed as sharply as possible at full aperture, and the lens stopped down until the definition is even all over. The lens is capped, a piece of bromide paper put in the frame in place of the white paper used for focussing, and the exposure made.

It will most likely happen that when the right position for the mirror and frame is found the image of the negative will be wider at one end than at the other. In this case the mirror must not be moved, but the frame set at a greater or less angle to it, until the image is a true rectangle. When the correct position is found, if two push-pins are inserted in the board immediately behind the frame, and one at the end, it can be removed in order that it may have the piece of bromide paper placed in it ready for exposure, and then may be put back with the certainty that it is in exactly the same position. It is also most important that the frame and mirror be quite vertical, or the image will be twisted sideways.

Though I have worked with a convex mirror, I see no reason why a concave one should not answer as well. The only important thing is that the curvature must be cylindrical and not spherical.

Notes on the Photography of Cars.

BY NORMAN WHITLEY. Special to "Photography & Focus."

IT is not quite as easy as it may appear at first sight to take a really satisfactory picture of a motor car, and a good many little details will require attention if we want to get a photograph which will show the car off at its best and will give its owner reasonable satisfaction. Cars are now so universally used that most photographers must have had to portray one.

One of the first and most important points to consider in car photography is the selection of a background. A car is a somewhat patchy object, and it is therefore necessary to select for it a setting that is at least fairly uniform, or the car may be lost sight of in the background. A deep mass of foliage, without any little gaps through which the sky can peep, or a building dark naturally, or from being covered with creeper, will serve, but one must beware not to get it with the sun shining on each shiny leaf and making a brilliant spot of each.

Colour is a difficult matter to allow for in arranging the subject on the screen. A bright red car against a dark screen of foliage stands out brilliantly clear and conspicuous, but in the photograph the car and its background may appear very much of the same tone.

The next point to consider is the position of the car and camera respectively. If a car with two persons on the front seat is photographed too much in profile, as it were, one of the occupants is hidden by the other. On the other hand, if it is photographed from a point too much in front, the result is not very pleasant, as one gets so much of the bonnet and so little of the car. The best position will be found about half-way between the two, as this gives both car and its occupants with pleasing perspective. Too near a standpoint should not be selected or the front of the car will appear exaggerated and the back dwarfed; in fact, within reason, the further the camera is from the car the better, as the perspective becomes more natural.

Unless a very short exposure indeed is to be given, it is best to have the engine at rest, as otherwise the slight vibration would prevent the picture from being as sharp as it should be. The bright parts on a car are often a source of trouble, but it is frequently possible to shift slightly either the car or the camera and so to get a position where the reflections are not so prominent. As is the case with almost all subjects, backed plates are a great advantage, as it is almost impossible not to have some of the bright parts showing, and these may give rise to halation.

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GREAT BRITAIN.	s.	d.	ABROAD.	s.	d.
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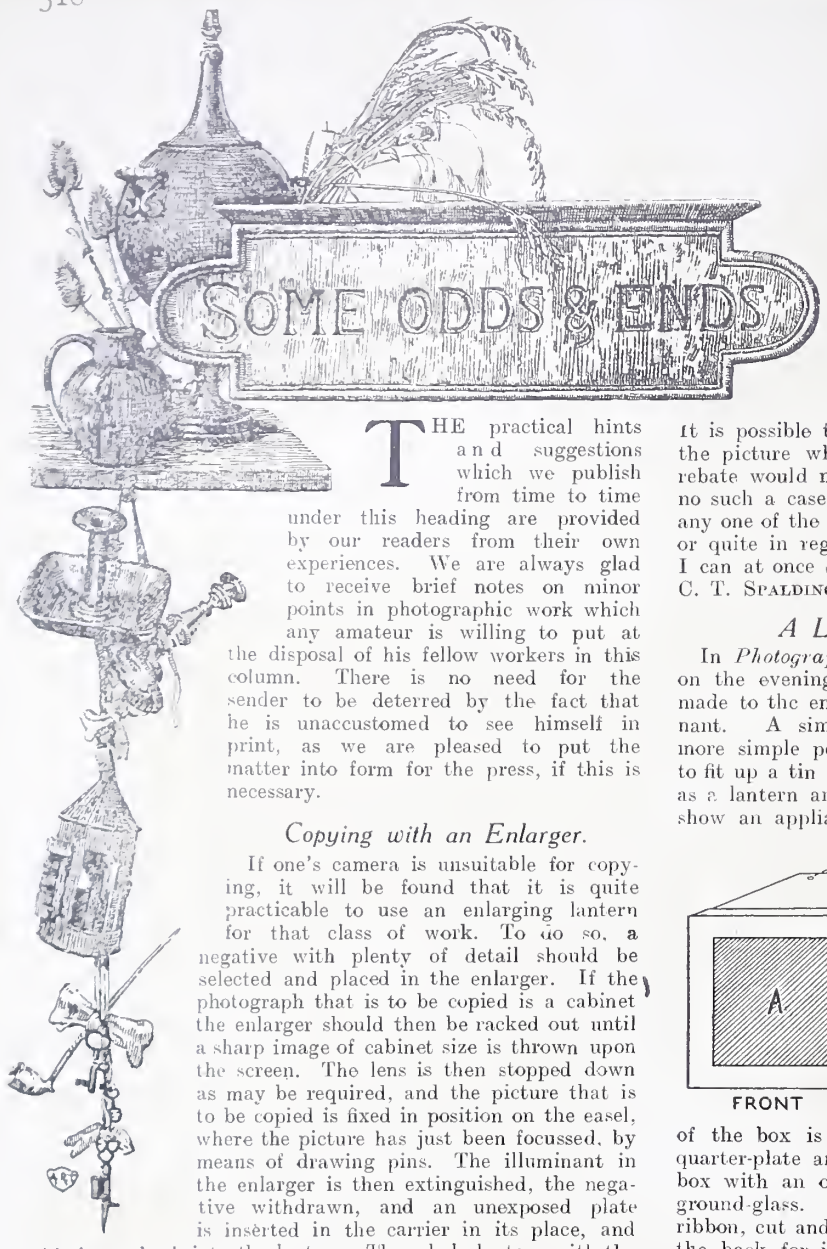
TO CONTRIBUTORS.—The Editor will be glad to consider original up-to-date manuscripts on photographic subjects. All contributions must be typewritten, or in very legible handwriting, on one side of the paper only, and should bear the name and address of the sender. Letters or communications arising out of matters already appearing in the paper are not paid for. The Editor disclaims legal responsibility for the safety of matter submitted to him, but he will endeavour to return rejected manuscripts, etc., when a stamped addressed envelope is enclosed for that purpose. No notice whatever can be paid to communications without the name and address of the sender, not necessarily for publication.

PRINTS FOR CRITICISM.—Readers sending prints for criticism or advice are notified that in all cases it is understood that by so doing permission is given for their reproduction, without fee, in PHOTOGRAPHY AND FOCUS.

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INTERVIEWS.—The Editor will be at 20, Tudor Street, on Wednesdays, between the hours of 9.30 and 11.30 a.m., but can only be seen at other times by appointment.



THE practical hints and suggestions which we publish from time to time under this heading are provided by our readers from their own experiences. We are always glad to receive brief notes on minor points in photographic work which any amateur is willing to put at the disposal of his fellow workers in this column. There is no need for the sender to be deterred by the fact that he is unaccustomed to see himself in print, as we are pleased to put the matter into form for the press, if this is necessary.

Copying with an Enlarger.

If one's camera is unsuitable for copying, it will be found that it is quite practicable to use an enlarging lantern for that class of work. To do so, a negative with plenty of detail should be selected and placed in the enlarger. If the photograph that is to be copied is a cabinet the enlarger should then be racked out until a sharp image of cabinet size is thrown upon the screen. The lens is then stopped down as may be required, and the picture that is to be copied is fixed in position on the easel, where the picture has just been focussed, by means of drawing pins. The illuminant in the enlarger is then extinguished, the negative withdrawn, and an unexposed plate is inserted in the carrier in its place, and this is put back into the lantern. The whole lantern with the exception of the lens should be covered with a cloth, so as to be light-tight. The exposure may be made with magnesium ribbon. The writer has obtained some excellent copies of cabinet portraits with an exposure of from three to four inches of ribbon, held on a level with it at about three feet from the picture, and two from the side of the enlarger. The ordinary quarter-plate enlarger will usually allow a quarter-plate print to be copied quite large enough for subsequent enlarging, while a cabinet print may be copied of the full quarter-plate size.—W. H. POLLINGTON.

Developing P.O.P.

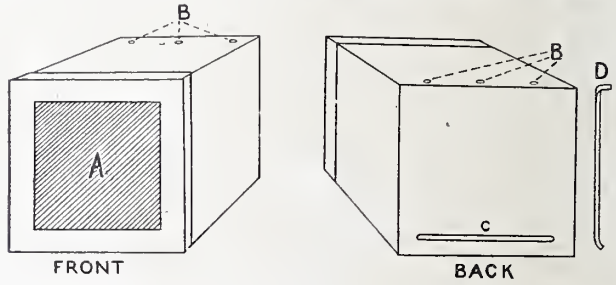
I have been experimenting with developers for P.O.P., and have been able to obtain on the developed prints exactly the same tones that can be got with the sulphocyanide toning bath, by using a developer made by mixing four parts of the Paget Co.'s developer for phosphate paper (the diluted developer) with one part of the developer given by Mr. Moss in *Photography and Focus* for March 9th, 1909 (page 199). The tone obtained may be varied by varying the depth of printing, deep printing giving brown tones, while very light printing gives a purple similar to that got by toning with sulphocyanide.—D. O. JONES.

Identifying Exposed Plates.

The following little dodge is one which I have had in use during the past summer and found very convenient. At one end of each dark slide little V shaped notches are cut in the rebate with a pocket knife. They need only be quite shallow notches, and as many notches should be cut as correspond with the number on the outside of the dark slide. When the plate is developed, each of these notches will show up quite distinctly, and so will form a record, which will last just as long as the plate itself will last, and will tell in which slide that particular plate was exposed. It is possible that if the notches came against some part of the picture which was very dark that the outline of the rebate would not be plain enough to show the notches, but no such a case has occurred with me up to the present. If any one of the dark slides happens not to be quite light-tight, or quite in register with the others, or otherwise imperfect, I can at once see on looking at the negatives which it is.—C. T. SPALDING.

A Lantern for Burning Magnesium.

In *Photography and Focus* for October 26th is an article on the evening use of daylight enlargers, and reference is made to the employment of magnesium ribbon as an illuminant. A simple method of obtaining even illumination, more simple perhaps than those described in the article, is to fit up a tin biscuit box in such a way that it can be used as a lantern and placed behind the negative. The sketches show an appliance I have used for many years. The size



of the box is 9½in. × 9in. × 8½in., and it is suitable for quarter-plate and 5in. × 4in. negatives. A is the lid of the box with an opening cut in it, and fitted with a piece of ground-glass. BB are holes through which magnesium ribbon, cut and shaped as at D, is hung. C is a hole cut in the back for introducing a taper to light the magnesium. To use the apparatus, the box is placed so that the ground-glass is adjusted to the back of the negative, and one or more strips of magnesium are inserted through the holes at B and lit with a match passed through the aperture at C. The curve given to the lower end of the ribbon brings it into a handy position for lighting. When the blaze is over, the box is carried to the fireplace, the lid is removed, and the smoke allowed to escape up the chimney. The ground-glass is dusted, and the ashes of the ribbon are shaken out of the bottom of the box. The powder of magnesium oxide which deposits on the walls of the lantern should not be disturbed, as it is gradually deposited as a fine white coating which forms a better reflecting surface than does the bare tin. For exposure. I find that my pyro-ammonia negatives, thin, full of detail and of a yellowish colour, require two strips of ribbon when enlarging on to a plate of about 60 Watkins to make enlarged transparencies, the enlargement being two diameters, and the stop that marked f/16. The box contains sufficient air for the consumption of three strips of magnesium, about 2ft. in all, but, of course, any amount of illumination may be had, by discharging the smoke and exhausted contents, refilling with a fresh supply of ribbon and repeating the process.—F. RICHARDS.



SUMMER. BY E. T. HOLDING.

No. 41 at the Exhibition of the Royal Photographic Society.

Development in Cold Weather.

By R. O. Young. *Special to "Photography & Focus."*

AT this time of year photographic journals and the photographic columns in the daily papers are full of cautions and advice against mistaking what is actually the result of using the developer too cold for under-exposure of the plate. The caution is seasonable; but when it comes to the photographer to decide how his developer is to be warmed he finds himself in a difficulty at once. It is by no means easy, starting with solutions, say, at 45°, to warm them up to 60° or 65°, and maintain them at that from the beginning to the end of development. Anyone who cares to try the experiment, taking the temperature before and after the operation, will be surprised to find how great an alteration will have taken place.

There is, as a matter of fact, only one way short of elaborate "thermostats," or appliances which are quite outside the pale of everyday work, and that is to bring the whole dark room to the required temperature by some form of heating arrangement. The lowest temperature which is at all satisfactory for the purpose will be found to be 60° Fahr., and even at this some developers are sluggish enough. It is not sufficient to take cold solutions, and particularly cold water, into a room at this temperature, and to assume that they will work satisfactorily straight away. They must either be brought up to 60° by the addition of warm water, or must be left in the room long enough to acquire that temperature. At least an hour should be given for this purpose, and the dishes should be in the room, as well as the solutions.

The most important of all is the water, as this is generally used in such proportion to the stock solutions as to govern the final temperature. If the stock solution of developer is used just as it is for development, without dilution, the water supply does not matter. Although we are often told that all the solutions used should be at the same temperature if we would avoid frilling and blistering, I have never experienced the slightest trouble on this score



THE TOILER. *From the Advanced Workers' Competition just closed.* BY GEO. F. HIDE.

when using modern plates of good quality, even when the developer was at 65° Fahr. and the subsequent washing waters and fixing bath were icy cold. It is reasonable to suppose that washing would take much longer with very cold water than it would do were the temperature higher, since the gelatine is softer and more expanded; but in actual practice this is not in the least likely to give trouble.

Fixing is certainly much slower in a very cold hypo bath, and for that reason the hypo should not be freshly dissolved, as this, as is well-known, lowers the temperature very much, nor should it be used without being left in the warm dark room for a little while. Still, as the fixing is a visible operation, to a certain extent, we can learn from the appearance of the back of the plate whether it is proceeding as fast as it should do, or not.

It will be seen, then, that the precautions against cold in development turn out to be in a great measure merely the proper warming of the dark room and the leaving of the most important solutions in it for a little while before use. Many amateurs are in doubt as to whether it is possible to develop their plates in a room in which is a fire, and they may be glad to learn that such a course is quite practicable. So long as the fire is not burning with a bright flame, and so long as the work is not done too near it, or where the light from the fire can strike direct upon the plates, there is very little fear of light fog on this score. In fact, the advantage of working in a room with a fire, in preventing the solutions from becoming too cold, far more than counterbalances the disadvantage of having to take a little thought, not to let the firelight fall on the plates. If the fire is flaming too brightly to be safe, a little water poured upon it will soon deaden it down to a red glow, which will do no harm with reasonable caution.

Not only are development and fixing delayed by a low temperature, but toning is also very much prolonged if the toning bath is too cold. The above precautions may be applied to this operation also.



Arranging the Flowers. *By Chas. Waring.*



Doll Photograph Competition.

Entries for this Competition close January 31st, 1910.

THE issue of *Photography and Focus* for November 23rd, 1909, contained an article by Mr. Weaver Baker on the arrangement and photography of groups of dolls, showing how this could be done indoors on a winter afternoon or evening. In connection therewith, we have arranged to hold a competition for the best set of three prints which have for their subject a doll or dolls represented as "doing something." The dolls must be "human" and not "animal" dolls, but the latter may be introduced as subordinate objects.

No attempt should be made to cram as many dolls as possible into any one scene; the aim should rather be to keep the composition simple, and to tell the story clearly and without conflicting details. The awards will in no case be given to prints of poor photographic technique, but given good technique, the winning prints will be those which comply best with the condition described in the previous sentence. This should be a competition in which a very great many of our readers could take part; and one, in the preliminaries for which, at least, they might get a good deal of help from other members of the household.

RULES.

(1.) Each entry must consist of a set of three prints, which may or may not be mounted. They must not exceed half-plate size ($6\frac{1}{2}$ by $4\frac{3}{4}$in.), and need not all three be of the same dolls. One reader may send any number of sets, but each print entered must have one of our competition coupons for November, December, or January stuck on the back of it. The back of each print must also bear the name and address of the sender, the title of the print, and the titles of the other two prints which with it form the set.

(2.) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(3.) The publishers of *Photography and Focus* shall have the right to reproduce, without payment, any of the prints sent in, winning or otherwise.

(4.) All entries must be addressed "Doll Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on January 31st, 1910, at the very latest.

Prizes: One silver plaque, one bronze plaque, one bronze medal.

A CRITICAL CAUSERIE

Concerning some Photographs by Beginners.

By "The Bandit."

"Critics?—appalled I venture on the name,
Those cut-throat bandits in the path of fame."—BURNS.

The prints published below are selected from those sent in to our competitions which have just closed. We cannot undertake to forward prints to "The Bandit" for criticism here or by post. The conditions under which alone prints are criticised will be found each week under the heading "Queries and Replies."

I AM not often very much impressed by "moonlight scenes." As a photographer I divine the machinery of the trick too well; I resemble the stage carpenter who was unmoved by the most harrowing theatrical tableaux. He saw them from behind: I see "moonlight scenes" from behind, likewise. I know those dramatic mid-air sunsets, those under-exposed negatives, those "pathways o'er the water" produced by sheer soot and whitewash that would be condemned as hideous in any other type of photograph.

So, I repeat, most moonlight photographs leave me cold; and the example which forms my first illustration this week is only a partial exception.

It is called "A Night All Mystery," and this name is charming. Remember, though, that it is not only charming, but unambiguous. Were the title "The Silent Loch," or something of that sort, we should not know definitely whether the photographer had intended us to accept his picture as a sunset scene, a threatening storm scene, or a moonlit scene. The author of this print makes no bones about it. This is presented as his idea of night—not dusk, but night.

Well, as photographers we are perfectly well aware that, when the camera was facing this panorama in nature, night had not fallen. It is feasible, on very brilliant moonlight nights, to take landscapes, but they are not in the least like this. Those clouds, for instance, would not have appeared thus: they would have moved, for one thing, and their lighting would have moved, too, inasmuch as the exposure would run into many minutes under the most favourable circumstances.

Ergo, we are being offered a thing which, by its very nature, is palpably a "frigid and calculated" ——. It is as much so as a combination print I saw in a popular illustrated paper the other day, representing a certain staid politician attired as Mr. Pickwick.



Moonlight in the Valley, Grindelwald. *Edwin Wright.*



Autumn's Dwindling Afternoon. *R. Morris Beveridge.*

If, however, "A Night All Mystery" is beautiful, does it matter that it is untrue? How about the oft-quoted and misused lines from Keats's "Ode on a Grecian Urn?" Keats says:

"Beauty is truth, truth beauty"—that is all
Ye know on earth, and all ye need to know."

In short, if it is beautiful, is it not thereby made positively true, according to the Keats teaching?

This is a question that can only be answered by asking another. Is "A Night All Mystery" really beautiful?

And that, obviously, is a matter for the personal equation. One reader will pronounce it beautiful, another not. Personally, I think it very nearly beautiful; it comes nearer to being beautiful than any other of the many "moonlight" scenes that have

passed through my hands since I started this Causerie. With all its faults, it has a certain majesty. The blacks are too black, the distant light on the water is too white; still, there is a largeness about the thing that I cannot escape.

Its faults are the faults of all "moonlight" photographs. In addition to its lack of transparency and atmosphere, it is sentimental; its appeal is a shade obvious and minor-poety. There is a tinge of the Christmas card about it, a hint of melodrama.

It has outstanding merits, all the same, and we soon perceive this when we turn to other moonlight photographs. I reproduce one only, and have purposely chosen another mountain view. This is called (again no beating about the bush!) "Moonlight in the Valley, Grindelwald." It has the same faults as "A Night All Mystery," but not the same merits. Its blacks are too opaque, its whites too blank. There is no valid excuse for the turgid inkiness of the foreground: correct exposure, preferably with an ortho. screen, would have got some suggested detail in it, and retained the clouds as well. A certain amount of "mystery" in the depths of the valley is desirable enough; but untranslucent needle paper is not mysterious, it is only ugly.

This picture, also, suffers in comparison with the other because of its lack of composition. It has none of our first scene's balance. "A Night All Mystery" is definitely composed; the lake and the undulating hill-tops make flowing lines, leading strongly and insistently, but not abruptly, into the remote distance, where at the vanishing point of the lake its surface catches the alleged moonlight. In the Alpine snap there are no lines of any consequence at all, except the precipitous one on the left, which leads nowhere in particular; and the chief object, the explosive-looking cloud, is plumb in the middle of the sky.

But the cloud effects observed on one's travels and worthy of record need not necessarily be the ultra-dramatic kind. Look at "The Silver Sea," which is the work of one who has sent many foreign scenes, and is therefore probably itself an exposure from abroad.

It is quiet, soft, serene; and it succeeds in delineating a sinking-sun effect without any clogged blacks and glittering whites. The scale of its tones is extremely short; in the original print I doubt whether there is an absolutely bare piece of white paper, and there certainly is not a speck of solid black.



A Night All Mystery. *By William Rae.*

At first sight the picture doesn't seem to tell much of a story—nothing like so virile a story as "A Night All Mystery." But "The Silver Sea's" story is an unexciting one, and, like many unexciting stories, it is charged with meaning; so much so that one might guess that the author of "The Silver Sea" is a closer and more loving observer of the subtler phenomena of nature than the author of "A Night All Mystery."



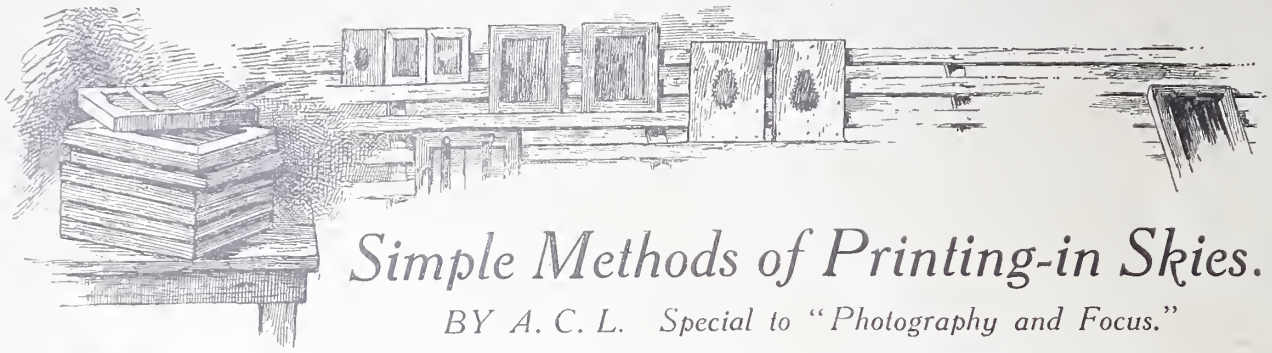
The Silver Sea.

The last print I shall reproduce this week is called "Autumn's Dwindling Afternoon" (another pleasing title!); it appears intended to depend for its strength largely on the heavy shadows of the two trees. It is a well composed print, and the distance—emphasised by the said trees—has feeling and softness. But need the trees be quite so black?

The sun is beyond them, but even so I am not sure of their sombreness. In the branches especially there is a cut-out appearance, a lack of feeling for the featheriness and depth of leaves and twigs which would be visible in nature.

The fact is, if you once start giving way to the silhouette habit you may produce superficially impressive pictures, but you will find yourself growing less and less attentive to the facts of nature and more and more to the way those facts can be made to turn into fictions—pleasing, perhaps, but still fictions—in the developing dish. Furthermore, as I have said, it is easier to make black-shadowed and whitewash-highlighted pictures than true ones; and the easy road is not always the wisest one—and is always, mark you, the overcrowded one.

Competitions close December 31. For rules see page 528. The "Doll Competition" rules are on page 521.



Simple Methods of Printing-in Skies.

BY A. C. L. *Special to "Photography and Focus."*

IT is rash to claim in these days of universal knowledge that any process, or method, has not been worked before, but at least I cannot remember having seen described elsewhere either of the following methods of printing skies into pictures from separate negatives, and I hope, therefore, that they may be new to many readers of *Photography and Focus*.

I was faced with a problem recently. I had made a negative of an old Tudor house, which, while giving an excellent print, was so dense that it required the best part of a sunny day to secure a good picture on printing-out paper. A proof with clouds printed in (by the method of blocking out first the sky and then the landscape, described fully below) was submitted, and then a request was received for a hundred postcards "exactly as proof," to be delivered the following day. An impossible feat with my dense negative, and I had not even a print to which I could add the clouds. These are the means by which I eventually managed to supply the cards in the stipulated time.

A print of the negative was made on a glossy silver-phosphate paper, and all the sky portion very carefully trimmed away with fine-pointed embroidery scissors. A print was then taken, on similar paper to the cloud negative, and while still wet, the landscape portion was simply placed over it and pressed into close contact, the composite print placed against a piece of glass in a large printing frame, and a copy negative made in the camera. This defied the closest scrutiny to say that the clouds were not taken on the same plate as the landscape, and was thin enough to give a fine print on phosphate paper with the briefest exposure. The sky effect was a feature of the picture, and it was essential to reproduce this. I do not know any other method by which I could have achieved the dual purpose of quick printing and effective sky rendering.

The method by which the first proof print, referred to above, was made was as follows: The sky portion of the negative was quite opaque, so that no blocking out was necessary. A print was taken on self-toning paper, and then the landscape, where it impinged on the sky, was very carefully painted over with red water colour paint. This blocking out was taken about half an inch down, and then a mask was cut to cover up the rest. The cloud negative was then put in front of the sky portion, and printed in the ordinary way. Before immersion in the hypo the paint was sponged off, and the result was a print so perfectly joined as regards landscape and sky that, although it was sent to a lady who had herself an excellent knowledge of photography, she remarked upon the wonderful cloud rendering being secured without under-exposure of the landscape portion! I am inclined to doubt, however, if this method will prove thoroughly satisfactory with other than the self-toning papers, as either the wetting involved by the water colour painting, or possibly something in the paint itself, appears to change the tone of ordinary P.O.P. where the paint has been applied, when the print is finally fixed and toned.



Industry. *By James G. Gale.*

A modification of this last method provides, however, a very useful and exact way of printing clouds into enlargements. The sky portion being blocked out of the landscape negative, the exposure for this is first made, and the enlargement developed in a dilute solution until the sky line is clearly marked. After a brief rinsing in water, the landscape portion is now blocked out with water colour paint as described, and a mask placed over the remainder of the foreground. The cloud negative is placed in the enlarger, and the necessary exposure given for this, remembering that the wetting of the paper has slowed it somewhat. The paint is then carefully sponged off and the whole print developed up fully.

I have found this method invaluable where fine detail comes against a strongly accented sunset sky.



EVENING ON THE MONNOW. BY F. C. PRITCHARD.

Winner of the Pilley Challenge Cup in the Competition of the Herefordshire Photographic Society just closed.



"WHERE LIGHT AND SHADE REPOSE, WHERE MUSIC DWELLS." BY F. H. CLIFFE.

No. 165 at the Exhibition of the Royal Photographic Society.



evaert

Gaslight

"None of our results did justice to the exquisite original. Clear enough ... and accurate in detail, but oh! the dismal greys and whites,"—A. CONAN DOYLE.

THIS statement was made by Sir A. Conan Doyle in the year 1882, when he penned an interesting article for one of the photographic journals. What paper was used for printing we do not know, but it was certainly not Gevaert Gaslight. The creator of Sherlock Holmes is not the only worker who has made the above complaint, but photographers in '82 had not the opportunity of using Gevaert Papers, and prints which did not do justice to the original view were not uncommon. To-day, however, there is no excuse for "dismal" prints, for the photographer has Gevaert Gaslight Paper, with its many grades in both the Normal and the Special series—grades of papers giving the clearest of whites, the most delicate half tones, depth, and richness in the shadows, making perfect pictures in every sense of the word—pictures which would indeed be a revelation to workers of 1882. There are two "series" of Gevaert Gaslight paper, and a grade to suit every negative.

Gevaert LIMITED

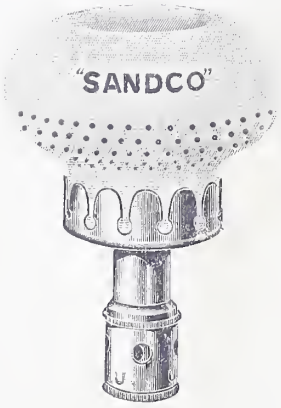
Manufacturers of Photographic Papers, 26 & 27, Farringdon Street, London, E.C.

REVIEWS

The Sandco Dark Room Heater.

THE satisfactory heating of the dark room during the winter months is a problem which confronts every amateur photographer, except those who are so favoured by fortune as to be able to utilise a general hot water system for the purpose. It is not only that work in a cold dark room may be uncomfortable and even injurious to health, but if the room is cold all the photographic operations are interfered with. Developing, toning, fixing, all are slowed down and ultimately stopped by too low a temperature, while solutions, which are anywhere near the saturation point under ordinary conditions, deposit some of their contents in the form of crystals as the temperature falls. So that not only is the action directly slowed by the cold, but it may also be slowed down indirectly, from the solutions being unsuspectedly weak. All this is to be prevented by keeping the room at a proper temperature; the question is how is this to be done.

A very simple device for the purpose is the Sandco dark room heater, which is illustrated on this page, and is being put upon the market by Messrs. A. E. Staley and Co., of 19, Thavies Inn, Holborn Circus, London, E.C. It consists of a bunsen burner, which can be screwed upon the nozzle of any ordinary gas bracket, and which is provided with a regulator, by which the air supply can be controlled. Over the top of the burner fits a bowl, or rather a ball of some unglazed porcelain-like material, the lower part of which is pierced with a number of fine holes.



On the gas being turned on, lit, and the air supply being duly regulated, the gas burns at each of these holes with a pale blue, only slightly luminous flame, which soon heats the ball to a dull red. A good deal of heat is given out, and, what is important at times, only a very little light. Provided the arrangement is fixed where it does not actually shine direct upon the plates, and provided the gas is not turned unduly high, it is quite practical to have the heater going in the dark room while slides are being filled or plates developed.

The price of the Sandco dark room heater is 3s. 6d. Those who have gas laid on to their dark rooms will find it an appliance worth noting.

Johnson's "Photo-Tints" for Colouring Prints and Slides.

THOSE who like to tint their photographs, whether those photographs take the form of postcard or other paper prints, or lantern slides, may be glad to know of the excellent set of liquid colours for the purpose, which Messrs. Johnson and Sons, of 23, Cross Street, Finsbury, London, E.C., have just put on the market under the title of Johnson's "Photo-Tints."

The set consists of nine bottles of concentrated colours—brown, violet, blue, green, yellow, orange, pink, scarlet and crimson—which may be used either just as they are, or diluted by water, or mixed together to obtain other tints. They are applied by means of a soft brush, the print to be coloured being first damped, and, preferably, laid upon a sheet of glass.

The set of nine Johnson Photo-Tints covers a very wide range of colour. They are easily applied, and are perfectly transparent. This last is very necessary when they are required for colouring photographs, for which many of the ordinary water-colour paints are quite unsuited. They meet all the requirements of the amateur, and from their concentrated character will last a long while. In fact, a word of caution should be given against using the colours in too strong a form; dilution will almost always be found an advantage. The prints may be glazed on ferrotype in the usual way after tinting.

The price of the set complete, in a little cardboard box, is one shilling, and if any colour is used up before the rest additional bottles of it can be obtained at twopence each.

The Dallmeyer Enlarging Calculator.

UNDER the title of "The Dallmeyer Enlarging Calculator" Messrs. J. H. Dallmeyer, Ltd., of Denzil Road, Neasden, London, N.W., have just introduced a little appliance, which we have no doubt will commend itself to a good many of those who follow that most popular side of amateur photography at present, to wit, enlarging. The calculator consists of a spring tape measure, on one side of which is a scale of inches, and on the other a scale showing the degrees of enlargement or reduction.

The apparatus is used in the following way (we quote from the makers' instructions): "After the free end has been attached to the easel on which the enlargement is to be made, the tape is drawn out until the number indicating the required degree of enlargement or reduction appears. The distance between the negative and the easel is then adjusted until the negative is exactly opposite this number, and the front of the enlarging camera carrying the lens racked forward until the image is sharp. There are, in each case, two positions of the lens at which the image is sharp. The first position gives enlargement, and the second, or the position nearer the easel, reduction so that the calculator can also be used for making lantern slides by reduction."

In ordering the calculator it is, of course, necessary to state the focal length of the lens that is used on the enlarger, as the calculator has to be scaled to suit it. The price of the appliance, in nickelled case, is 2s. for distances up to three feet, 3s. for distances up to five feet. It is quite small, so that it can be slipped into the waistcoat pocket, and can be used for all ordinary measuring of length, as well as for its special purpose.

Penrose's Pictorial Annual: The Process Year Book.

THE handsome annual dealing with reproduction work which Messrs. Penrose and Co., of 109, Farringdon Road, London, E.C., have now published for fifteen successive years is on this occasion as bulky as ever, and contains a fine and representative collection of reproductions by various processes, both in monochrome and colour. The articles also are calculated to interest those who are in any way concerned with process work.

The editor, Mr. W. Gamble, whom we congratulate upon an admirable volume, deals with the year's progress in process work, as to which he seems to take a rather pessimistic view, which, it is to be hoped, will not be justified by the result. The annual is one which should be in the hands of everyone connected with illustration work.



Negative taken on a

"WELLINGTON"

'XTRA SPEEDY

PLATE. (SPEED 350 H. & D.)

Half-tone from a print on "WELLINGTON" Carbon Bromide.



Beginners' Competition.

Open to all photographers who have never taken an award.

CLOSING DATE.—December 31st.

PRIZES.—First, a signed copy of "The Complete Photographer," a half-guinea work by Mr. Child Bayley, now in the third edition. Second, a free subscription to "Photography and Focus" for twelve months. One or more certificates of honourable mention will also be awarded.

Rules.

(1) Each competitor can send as many prints as he likes, but each print must bear on the back the coupon, published each week, the name and address of the sender, the title of the picture, and no other writing whatsoever.

(2) No print will be eligible that is larger than 5½ × 3½in. (postcard size) or 5 × 4in. Nor are mounted prints eligible.

(3) No handwork other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute, the editor shall have the right to call for the negative from which the entry purports to be a simple direct contact print.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce without payment, any of the prints sent in, winning or otherwise.

(6) All entries must be addressed "Beginners' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date at the very latest.

Advanced Workers' Print Competition.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates of honourable mention.

Rules.

(1) All photographs must be sent addressed "Advanced Workers' Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., postage paid, to reach there not later than the first post on the closing date, and must contain a stamped addressed envelope or label (*not loose stamps*) if they are to be returned.

(2) Each photograph must be mounted, but not framed. Prints in slip-in mounts are not eligible. Each must bear on the back the name and address of the sender and the title of the picture. No letters or other communications must be enclosed with the prints. Every print must bear attached to its mount a coupon for the competition of the month, which will be found in each issue of the paper.

(3) Each photograph must be the work of the competitor as regards selection and arrangement of the subject, exposure and development of the negative, and printing, development or toning, and mounting of the print.

(4) The prints which are accompanied by stamped envelopes or labels will be criticised by post, and the editor shall have the right to reproduce any of the prints, winning or otherwise. The awards will be made a fortnight after the closing date.

(5) Awards may be increased or withheld at the absolute discretion of the judge, and in all cases of dispute the decision of the editor will be final.

(6) There is no restriction as to the eligibility, except as set forth in these rules, and except that the same negative must not be used more than once in the competition. That is to say, that a print from it once submitted, all further prints, however varied, are ineligible.

(7) Neither editor nor publishers of *Photography and Focus* shall be held in any way responsible for the safety of prints or for their return to the competitors.

(8) The sending of a print to the competition will be regarded as a declaration to the effect that it is eligible under these rules, and that the competitor agrees thereto.

CLOSING DATE.—December 31st.

Special Subject Competition. Open to all Readers.

PRIZES.—First, Silver Plaque. Second, Bronze Plaque. Third, Bronze Medal. One or more certificates.

Rules.

(1) The subject of each photograph must be that announced for the particular competition.

(2) Each competitor can send as many prints as he likes, but each print must bear on the back the name and address of the sender, the title of the picture, and no other writing whatsoever. Each print must bear a coupon for the month, which will be found in each issue of the paper.

(3) No print must be mounted. No hand work other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute the editor shall have the right to call for the original negative from which the entry purports to be a simple direct contact print. Enlargements are not eligible.

(4) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(5) The publishers of *Photography and Focus* shall have the right to reproduce, without payment, any of the prints sent in.

(6) All entries must be addressed "Special Subject Competition," the Editor of *Photography and Focus*, 20, Tudor Street, London, E.C., and must be delivered at that address by the first post on the closing date.

SUBJECT AND CLOSING DATE.

An Indoor Portrait. Closes December 31st.

Greater Britain Competition. For Foreign and Colonial Readers.

Two Classes: (1) Beginners. (2) Advanced.

Prizes in each Class, First Prize, Silver Plaque. Second Prize, Bronze Plaque. Third Prize, a signed copy of "The Complete Photographer," a half-guinea work by Mr. Child Bayley (now in its third edition). Certificates of honourable mention will also be awarded.

Rules.

(1) Any amateur photographer may compete, provided (*a*) he resides in any part of the British Empire, beyond Europe, or (*b*) is a Briton living in any foreign country beyond Europe. If he has never taken an award in any photographic competition, he can enter in either class at his discretion. If he has taken an award, he must enter the "advanced" class.

(2) Each competitor can send as many prints as he likes, but each print must bear on the back the name and address of the sender, the title of the picture, the class entered, and no other writing whatsoever.

(3) No print will be eligible that is larger than 5½in. × 3½in (postcard size), or 5in. × 4in.

(4) No print must be mounted.

(5) No handwork other than simple spotting is permitted on negative or print, nor shading or dodging of any kind. It is distinctly understood that entry in the competition implies a declaration by the competitor that this rule has been complied with; and in case of dispute the Editor shall have the right to call for the original negative, from which the entry purports to be a simple direct contact print.

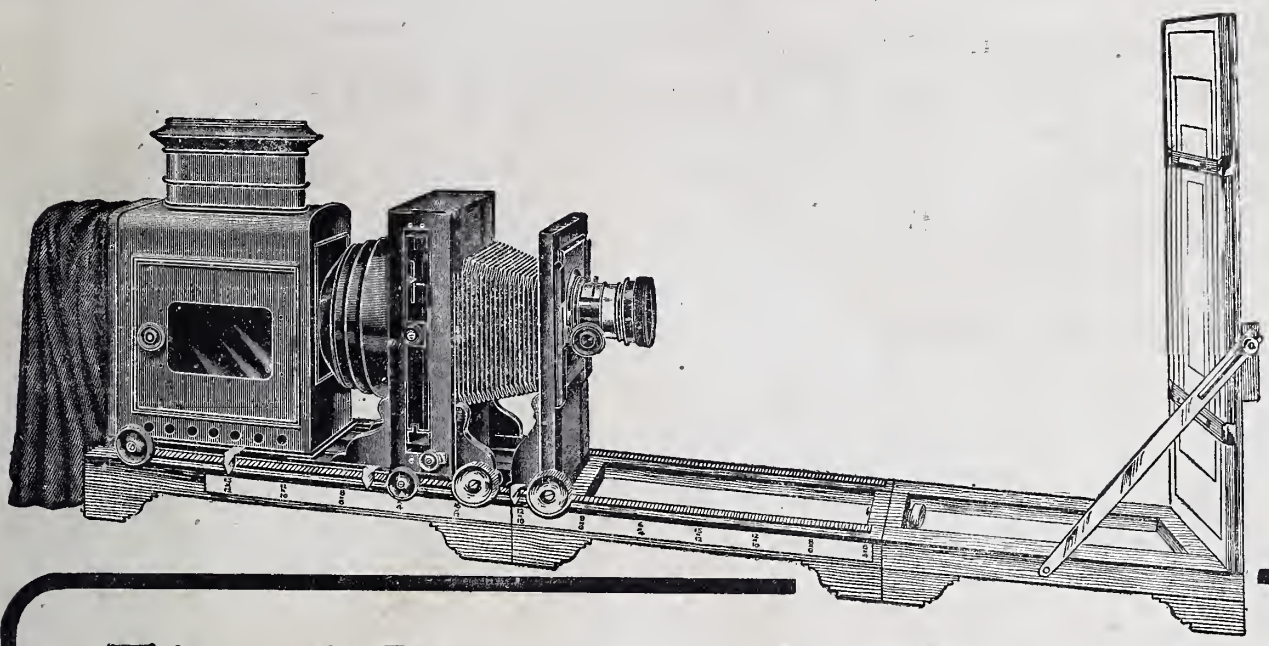
(6) No prints will be returned, and no correspondence with regard to the competition can be undertaken.

(7) The Publishers of *Photography and Focus* reserve the right to reproduce, without payment, any of the prints sent in, winning or otherwise.

(8) All entries must be addressed "Greater Britain Competition," the Editor of *Photography and Focus*, 20, Tudor St., London, E.C., and must be delivered at that address by Saturday, April 30th, 1910.

CLOSING DATE.—April 30th, 1910.

For particulars of the Doll Photograph Competition see page 521.



The "Record" Combination Enlarger and Easel

Registered Design No. 546462.

ensures absolute parallelism of all parts; all movements operated by racks and pinions; central swing carrier stage. A practical apparatus producing perfect pictures.

As a scientific instrument this piece of apparatus stands alone. It is the only enlarger of its kind on the market. It simplifies enlarging by artificial light, and enables the amateur to turn out work equal to that of the best professional.

As it is scaled for all the standard sizes, no calculations are necessary. The operator has only to decide the size enlargement he requires, and place the pointers attached to the body, condenser, and lens-board in position accordingly.

Movements are provided for correcting converging or non-vertical lines on the negative, and other faults due to not holding the camera level at the time of exposure. The enlarger is our well-known "Record," with its large body, back curtain, rising, falling, and tilting carrier, central swing negative carrier, and its separate rack and pinion systems to every movement. The base, easel, and all woodwork is made of walnut, polished, and very solidly constructed. The easel is clearly ruled for all the standard sizes, has swinging movement, and spring clamps for holding the bromide paper.

PRICES AND SPECIFICATION.	Without Objective.	With Objective, Scaled.
¼-pl., with 5½in. condenser and 15 by 12in. easel	6 6 0	7 10 0
½-pl., with 8½in. condenser and 23 by 17in. easel	9 15 0	12 0 0

Scaling to suit customer's own lens: ¼-pl. ... 12/6. ½-pl. ... 15/6.

The "Record" Enlarger without the easel and long base can be had separately. It is recognised to be the best value in enlarging apparatus on the market. Our booklet "How can I Enlarge?" which will be sent you free, contains full particulars of this and all our other patterns, the 'Abbeydale,' 'Coronet,' 'Express,' etc.

¼-pl., with 5½in. condenser and best quality objective ... £5 15 0
5 by 4 or P.C., with 6½ condenser and best quality objective 7 0 0
½-pl., with 8½in. condenser and best quality objective, £9 10 0
1/1 pl., with 11in. „ „ „ „ 18 0 0

W. Butcher & Sons, Ltd., Camera House, Farringdon Avenue, London, E.C.

Supplied by all the leading Photo Dealers.

Here and There.

A Flash Powder.

Dr. Novak has been investigating the different additions which may be made to plain magnesium powder in order to get a powerful light. The best results have been got by mixing equal parts of finely powdered dry magnesium and cadmium nitrate. The slightest trace of acidity in the nitrate gives a powder which is liable to spontaneous combustion, but this he states can be prevented by adding a few drops of a solution of soda to a solution of cadmium nitrate, and evaporating the liquid. The combustion takes about a third of a second, which is slower than when the magnesium is mixed with potassium nitrate, but the light is nine or ten times as powerful, and the smoke is reduced to a minimum. He reminds his readers that the manufacture of any flash powder is dangerous, and should be left in well qualified hands.

Varnishing Prints.

An article in the "Nord-Photographe" points out that many photographs after being mounted are very much richened in appearance by being varnished before framing. The varnish recommended is made by dissolving half an ounce of gum dammar in ten ounces of absolutely anhydrous benzine. If the benzine is not perfectly anhydrous, stains may be caused. The solution is filtered through cotton wool. To varnish the mounted print, it is held in the left hand, and the varnish poured over it from a wide-mouthed glass vessel. The varnish is poured off into another bottle, and should be filtered before using it again. Unmounted prints may be fastened down to a piece of wood or glass to be varnished, but great care must be taken not to get any of the varnish on the back or stains will result.

The Window in Home Portraiture.

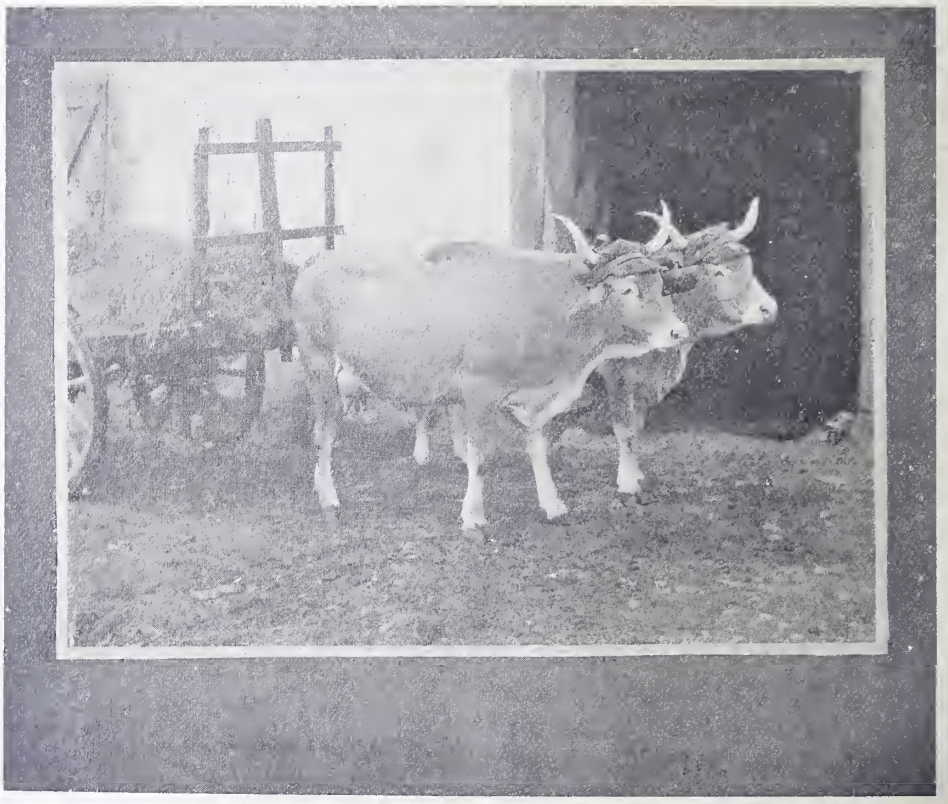
In the lecture Mr. L. L. Raymond delivered before the Photographic Society of New South Wales, he said that two blinds should be fitted to the window that is to be used for home portraiture. One of these should work in the usual way from the top downwards, and the other from the bottom upwards. Of the two, the latter is the more necessary. By the use of these the light can be made to fall upon the sitter at any angle desired. The light should be diffused, and to this end a screen of fine muslin is useful. It may be tacked on inside the window, does not cut off very much light, and should invariably be used, as it saves so much trouble from harshness. Even with such a diffuser a reflector is sometimes wanted, though, as a rule, it can be dispensed with entirely. The best material for the reflector is white blotting paper. It is easily put on a stand, does not crease, and reflects more light than most other material. It does not need to be very large, and for ordinary portrait work an ordinary enlarging easel with the blotting paper stuck on with dark room pins answers admirably. One must always remember, however, that the reflector is there only to lighten the shadows, and not to take them away entirely.

Timing Exposures in Enlarging.

Most enlarging lanterns allow plenty of light to leak round at the back, by which the dial of a watch can readily be seen. This is not as it should be, and the leaks should be stopped. When there is not sufficient leakage to allow of the watch being read, it can best be seen by fixing it up near the yellow lamp, say by standing in the top of a measure glass; a person of ordinary sight can watch the seconds hand from a couple of yards away.

Silver Stains on Negatives.

When a piece of P.O.P. is left in contact with an unvarnished negative, if there is any damp about, the negative is stained, as too many amateurs know to their cost. The stains are usually reddish brown or black spots, and as they are due to silver, the material of which the image itself is made up, they are generally regarded as irremediable, since anything which removes them will remove the image also. When they are not very bad, however, it has been found possible to get rid of them without seriously affecting the negative by soaking it in a combined toning and fixing bath, such as is used for P.O.P., until the stains disappear, and then washing it well and drying. Another method was suggested in "Apollo" recently. The plate is soaked in potassium bichromate five grains, common salt twenty grains, water one ounce. After some twenty minutes in this, the plate is well washed and soaked for a few minutes in a solution of ammonium sulphocyanide of twenty grains to the ounce, and again well washed and dried. It may be well if we caution those who think of trying this method, that it would be well before risking a valued negative to give it a preliminary soaking in five per cent. formalin.



Rest in Light. *By Miss Mordaunt.*

EMERSON and R. CHILD BAYLEY.

Ralph Waldo Emerson in "Select Writings," page 106 in Scott Library Edition.

"Labour is watched over by the same pitiless laws. Cheapest, say the prudent, is the dearest labour. What we buy in a broom, a mat, a waggon, a knife, is some application of good sense to a common want. It is best to pay on your land a skilful gardener, or to buy good sense applied to your gardening; in your sailor, good sense applied to navigation; in the house, good sense applied to cooking, sewing, serving; in your agent, good sense applied to accounts and affairs . . . .

. . . . Human labour, through all its forms, from the sharpening of a stake to the construction of a city or an epic, is one immense illustration of the perfect compensation of the universe. The absolute balance of Give and Take, the doctrine that everything has its price—and if that price is not paid, not that thing but something else is obtained, and that it is impossible to get anything without its price . . . ."

The Editor of "Photography and Focus" in "The Spirit of the Times," page 493 in last week's issue.

Cheap and Nasty.

"We have received lately a number of complaints from readers who have been getting prints or enlargements made at very low prices by some of the firms who advertise these cheap lines in our columns. In one case a reader sent us some of the prints he had received and some of his own prints from the same negatives. The latter showed that he was certainly a very skilful printer; but they did not convince us, as they were intended to do, that he had been 'done.' We take very great care to exclude from our columns all advertisements that are not genuine, and are always much obliged when readers call our attention to any abuse of our advertising space by dishonest traders. At the same time, we are not prepared to condemn off-hand advertisers whose products are not of the best quality, unless the price at which the goods are supplied is one for which the best might reasonably be expected. There is a market for second quality as well as for first quality; and one is as legitimate trading as the other. We are anxious to protect our readers as far as we can; but they must also protect themselves, by not expecting to get for sixpence things for which the leading firms can get a shilling. Prints and enlargements are the chief basis for what we have written above."

The enlargements, printing, and other photographic work done by RAINES & Co. are not offered at low prices. But they *are* offered as conforming with one standard—"Every print, every enlargement, the best result the negative will yield."

We charge you a shilling—and you get a shilling's worth. You buy "good sense applied to" photography.

But—write for our booklet "PICTORIAL PHOTOGRAPHY." It gives particulars of our work and charges—together with testimonials from the Editor, "The Walrus," and many of this journal's contributors and prize-winners, with whose names you are sure to be familiar.

Send a postcard for the booklet—TO-DAY.

RAINES & CO., The Studios, EALING, W.

"Have it Rainsed."—*The Walrus.*



"The time has come, the Walrus said, to talk of many things."

WHEN I hear photographers expressing a yearning for permanent printing processes I know that they are either raw beginners or unprogressive duffers. The man who is beginning to fancy himself at the photographic game, and is suddenly faced with some of his early work, never again has hankerings after permanence. What he hunts around for then is something that, after the lapse of a year or so at the most, shall vanish utterly, and like the baseless fabric of a vision leave not a wrack behind.

* * *

Never shall I forget my feelings when I once unexpectedly unearthed some of my first mounted photographs. Playing centre forward at football (in my slim and active days), I have been cracked like a filbert between two particularly full backs; but I felt happy then compared with my condition when I beheld those prints. There may have been worse things of the sort produced, but if so may I be protected from a sight of them. Mine were on glossy P.O.P., ghastly prints from villainous negatives; they had been trimmed with scissors (ugh!) to a shape that remotely suggested a rectangle; they were (in parts) stuck down with gum on to a bluish card with rounded corners and gilt edges; and, heaven forgive me, they were surrounded by a red ink line. One by one I solemnly burnt them and scattered the ashes to the four winds; but it is more than likely that similar prints of mine exist somewhere. That is the curse of permanence. Anyone who owns one of those prints could blackmail me horribly

* * *

Having thus presented my credentials I propose to give some valuable hints on the mounting of prints. The style I have just briefly described will certainly commend itself to some people, and I can only say they are entirely welcome to adopt it. The essentials for mounting photographs, as understood by the beginner, are a worthless print, an unsuitable slab of cardboard, and an ineffective adhesive. The method adopted is to apply to the back (and front) of the print as much adhesive matter as can be laid on, to place the amateur flypaper thus made somewhere on the card, to cover it with a piece of paper (preferably greasy), and finally to surmount it with a sort of monument composed of a chopping board, the family Bible, and four flat irons. When this erection falls down the print may be considered finished, and ready for framing. Some fastidious practitioners of this method go so far as to remove the sticky substance from the face of the print with a wet sponge, but this course is not to be recommended, as it results either in blisters or the complete divorce of print and mount.

* * *

Although most beginners subordinate honesty to economy and surreptitiously acquire the office gum pot for their work, there are others enterprising enough to make their own paste. At least, they try to do so. As a rule they become discouraged when they find that their most earnest efforts with flour and water result only in a mixture of white bullets and a thin fluid, which apparently has only one use—the rapid development of various fungoid growths. They then purloin the domestic starch and mount their prints wet. With anything like luck the prints drop off again when dry, and no great harm is done; but occasionally things go wrong, and the prints stick like ten thousand power leeches. In the latter case the whole arrangement rolls up so that it is of no earthly use except as the basis of a cardboard model of a tunnel. Other people use glue as a mountant, and encourage it to stick by fortifying it with a tin-tack hammered through each corner of the print. Others use a stringy rubber solution, which has been known in favourable circumstances to hold a print down for as long as five minutes.

Sufficient attention is by no means paid to the selection of mounting papers. Packets of such, specially made for the purpose, are commercially obtainable, containing such refined tints as plum colour, emerald green, pink, egg-yolk, crushed pumpkin, mud, and four ale. Far more advantage might be taken of the opportunities thus afforded, and the merits of some of the cheaper varieties of wallpaper are worthy of recognition. A multiple mount showing, say, a score of borders of different striking colours, and with a final margin of wallpaper, might take some time to erect, but it would certainly attract attention. On the other hand, where chaste simplicity is desired, there is nothing quite equal to a cut-out mount of roofing felt, with the bevel daintily picked out with gold paint. Some connoisseurs advocate a slight sprinkling of the mount with powdered cork, but this is an unnecessary refinement. It looks better plain. We must also remember that in the case of multiple mounting not more than one edge of any paper should be clean cut; the others should be trimmed with a blunt saw. For those who have no saw the correct form of edge can be obtained by means of a trained mouse. The final support should always be a very thin paper, which will run up into innumerable cockles and thus mercifully distract attention from the print itself. Even when this is not done the utmost care must be taken to prevent the actual photograph from becoming at all obtrusive. It should be entirely subordinated to the mount. The mount's the thing.

* * *

Opinions differ as to the correct position of the print on the mount. This is where individual taste and judgment find scope. Each must settle the question for himself. As a guide to a proper decision it may be stated that a print not placed in the middle of its mount looks very bad, while one placed in the middle looks very much worse. So that it is clearly a waste of time for photographers to argue about the matter at all.

* * *

I feel that I should be doing less than my bare duty if I do not implore all photographers, as they love mercy, to adopt a form of mounting invented by myself. I call it the humane method. No one whose heart is not entirely void of pity for his fellows can afford to ignore it. Two pieces of specially thick strawboard are taken, and cut or chopped to a size considerably larger than the print. A mixture is then made of as many adhesive substances as can be obtained, so that there shall be no possible shadow of doubt about it sticking hard and for ever. The print is then taken, and keeping it jealously guarded from mortal sight, the face of it (not the back) is coated liberally with adhesive. It is then laid down on one strawboard and rolled, stamped, rubbed, punched, and ground into contact. The other strawboard is then stuck down similarly to hide the back of the print. That is my humane method. Try it.

THE WALRUS.

SUBSCRIPTIONS.

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Six Months	3	3	Six Months	5	5
Three Months	1	8	Three Months	2	9
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